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Jno. Stainback Wilson M. D.

WOMAN'S

HOME BOOK OF HEALTH,

EMBRACING HER

PHYSICAL LIFE, HYGIENE,

AND

PECULIAR DISEASES:

BEING A BRIEF DESCRIPTION OF

THE STRUCTURE AND FUNCTIONS OF THE HUMAN BODY, WITH THEIR SPECIAL APPLICATIONS TO HYGIENE; TO THE SEXUAL DISEASES OF WOMEN; AND TO MIDWIFERY; AND, ALSO, THE TREATMENT OF SUCH CASES BY THE USE OF REMEDIES, SAFE, PLEASANT AND EFFICIENT.

NEW STEREOTYPE EDITION,

THOROUGHLY REVISED AND ENLARGED BY IMPORTANT ADDITIONS ON

MARRIAGE: CONCEPTION; PROCURED ABORTION; THE HYGIENE OF PUBERTY AND GESTATION; PAINLESS LABOR; THE HYGIENE AND DISEASES OF CHILDREN, ETC.

BY JNO. STAINBACK WILSON, M.D.,

Health Editor of Wilson's Herald of Health, Farm and Household Help; formerly Editor of the "Health Department" of Godey's Lady's Book; for many Years Member of a Regular Medical Association, Etc., Etc,

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Obedience is health, happiness, life.
Disobedience is pain, disease, death.

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To form some idea of the great value of the work read this, and the Author's preface.

PUBLISHERS' PREFACE.

Though many books similar to this have been published within the last few years, yet, the work now presented to the women of America, differs so widely from the demoralizing sensational publications of the day, in purity of style and sentiment, and in the TRANSCENDENT VALUE OF ITS TEACHINGS, as to need no apology for its reissue in a new and enlarged form, when it has already received the seal of popular approbation.

Nor is it necessary for the publishers to multiply words in reference to the Author. He is well known to the people as the editor of the "Health Department" of Godey's Lady's Book, which he originated, and to which he contributed, for years preceding the war, a series of the most popular hygienic articles, which have ever been written; and, which time, nor change, nor the strife and turmoil of civil war can efface from the public mind; and which are still remembered, quoted, and referred to as a standard authority on subjects pertaining to the health of women and children.

If our author had done nothing more than originated the "Health Department" of Godey's Lady's Book, he would be entitled to the lasting gratitude of the women of America, as the originator of a new feature in popular literature, which has been copied by many of the leading magazines of this country.

As to the professional standing of our Author, it is sufficient to say that he is a *regular* physician of long experience, and that he is well and favorably known to his professional brethren, as a contributor for the past twenty years, to the first medical journals in the country, both North and South.

The publishers in issuing a new stereotyped and enlarged edition of Dr. Wilson's valuable work, avail themselves of the opportunity to say a few words as to its nature and objects. The work is emphatically a Home Book for women.

Discarding, as far as possible, all medical technicalities, and dry useless details, it treats in plain, yet chaste language on subjects of the most vital importance to the health and happiness of all women.

At the same time those revelations that are too often made merely to fill up a book, or to minister to an idle and prurient curiosity, are avoided.

All necessary information as to the structure and functions of the generative organs of woman is communicated, so that she may understand her own Physical Life, Hygiene and Peculiar Diseases, and apply the principles which should guide her in the Preservation of her Health, in the Treatment of her Diseases, and in the Rearing of her Children.

In short, while the writer does not shrink from the performance of his delicate task, when this is necessary to the health and happiness of those for whom he writes,

he, at the same time, has a proper regard for that purity of sentiment, and that refinement of expression which are the brightest ornaments of womanhood.

The great object of the work is the PRESERVATION of HEALTH, or the PREVENTION of DISEASE in WOMEN, and in their OFFSPRING, thus opening up to them a HIGHWAY of HEALTH, wherein they may walk without fear of DISEASES, DOCTORS, DRUGS, or DEATH.

For the other divisions of the work the publishers refer to the Author's preface. They will, however, add a few words as to the fourth and fifth parts.

Part IV. is devoted to MIDWIFERY, and describes most of the ERRORS, DIFFICULTIES and DANGERS to which LYING-IN WOMEN are exposed; and tells HOW these difficulties may be OVERCOME: How these ERRORS may be CORRECTED: and How these DANGERS may be AVOIDED.

By following the directions herein contained, women CAN ESCAPE almost all the DREADED DISEASES and ACCIDENTS of CHILD-BED; and should any difficulty arise, it can generally be MET and REMOVED WITHOUT the AID of a DOCTOR: or LIFE may be SAVED in SUDDEN and DANGEROUS EMERGENCIES by the simple means advised, until medical aid can be obtained.

The lives of many women have already been saved by learning from this book WHAT TO DO FOR THEMSELVES, when no assistance could be had.

Again, women may learn from this part of the work the SWEETEST, the most IMPORTANT, and the most COMFORTING LESSON OF THEIR LIVES, viz.:

That the PAINS of CHILDBIRTH are not the DIRECT EFFECT of a CURSE from God; and that THESE PAINS may be AVOIDED BY OBEDIENCE TO THE LAWS OF HEALTH, and by carrying out the preparatory course prescribed in another part of the work.

In short, obedience to the rules given in this work will enable mothers to escape most of the DISEASES of PREGNANCY, and the PAINS and DANGERS of CHILDBIRTH; and all this WITHOUT THE AID OF ANY Drug.

THEN PART V., WHICH TREATS of the Hygiene, Nursing, and principal Diseases of Children, will prepare mothers for the discharge of their duties, by qualifying them to meet intelligently the difficulties connected with the nursing and rearing of children.

This part is entirely new, and has been written expressly for this edition, so as to make the work complete in all its parts, and in its adaptation to all the phases and stages of woman's PHYSICAL LIFE as MAIDEN, WIFE and MOTHER.

TO SUM UP, THEN, the work teaches ALL that is NECESSARY for WOMEN to KNOW, as to their own peculiar structure, functions and diseases; HOW TO PREVENT SUCH DISEASES, or how to REMOVE THEM if present, without the use of drugs; HOW TO REGULATE the NUMBER of offspring, when necessary; HOW to CONCEIVE VIGOROUS, HEALTHY CHILDREN; HOW to EDUCATE them BEFORE BIRTH; HOW mothers may ESCAPE DISEASE THEMSELVES, WHILE BEARING children, and BRING them FORTH SOUND, HEALTHY and BEAUTIFUL, WITHOUT DANGER, and almost WITHOUT PAIN; HOW to NURSE, TRAIN, and TREAT children when sick or well, so that they may live to enjoy the heritage of health and long life, bequeathed to them by mothers who CONCEIVED, BORE, NURSED, and EDUCATED them in accordance with the ONLY TRUE SCIENCE of HEALTH, HAPPINESS and LONG LIFE, AS TAUGHT IN THIS WORK.

PREFACE.

This work is intended SPECIALLY FOR WOMEN, and is divided into five parts.

Part I. contains an outline of the Structure and Functions of the human body, so far as this may be necessary to understand and apply the succeeding general and special precepts of Hygiene. The Sexual Anatomy and Physiology of Woman are treated more in detail; but all useless revelations are avoided; the object being not to minister to a prurient curiosity, but to communicate to women only that knowledge of their physical life and organization which is essential to their health and happiness.

Part II. is devoted to Hygiene, or the Preservation of Health. This constitutes a prominent feature of the succeeding pages: the Laws of Health are explained and enforced, and the great truth is inculcated, that prevention is better than cure—that disease is a natural consequence of violated physiological laws, and therefore *avoidable by obedience to those laws;* and that *this obedience is a moral obligation—one of the first great duties of life.* This part, while it is intended more especially for women, contains some things that might be profitably read by all.

Part III. embraces the Causes, Symptoms, and Treatment of the Principal Diseases of Women.

In writing this, we have not expected, or attempted, to make every one an adept in all the mysteries of medical science; nor have we endeavored to foster the humbug notion that "every one may be his own physician." We have simply tried to communicate that knowledge which is attainable by every person of ordinary intelligence, and which every woman, and especially every mother, should possess—that knowledge which will give the ability to distinguish many diseases in their early stages, while yet amenable to treatment—and to pursue a rational, safe and efficient course for their removal, instead of resorting to a medley of dangerous recipes administered at haphazard. And should the efforts for the removal of disease be unavailing, it is hoped and believed that the readers of this work can better decide *when* to send for a physician, and for *whom* to send. Thus may they be enabled to avoid the fatal error of sending for a physician *too late;* and, on the other hand, they may escape the scarcely less grave mistake of sending for some ignorant pretender, wholly unworthy of the responsible trust committed to him.

A most important peculiarity of the treatment prescribed in this work is the prominence given to Nature's remedies—the hygienic agents, air, water, food, the passions, etc., etc. These are made the prime, the principal remedies for the cure of disease. In almost all medical books written heretofore, for both physicians and people, these agencies have been either wholly overlooked, or they have had only a secondary place.* Medical writers, with

* True, several popular medical works have been published of late; but these have unduly magnified the hygienic agents, by making them the *sole* remedies. The peculiarity of this work consists in giving these remedies their proper place in combination with others equally safe, and sometimes necessary. In short, exclusivism is avoided. True science is eclectic.

very few exceptions, have failed to teach the great truth that *prevention is better than cure;* while their curative agents have consisted of the most active drugs, which are highly dangerous in the hands of the unskilful, and wholly inadmissible in ordinary domestic practice. Hence the almost universal ignorance and disregard of health; hence the prevailing incredulity as to the power and safety of Nature's remedies; hence the general belief in specifics and cure-alls; hence the delusion that the whole secret of medicine consists in swallowing pills, powders and mixtures; hence the fatal abuses of medicine in domestic practice; hence the gross impositions of quackery; and hence the broken-down constitutions, the withered beauty, the premature old age, the early graves, the miseries untold, the diseases innumerable, and the frightful mortality of the civilized world. The fatal errors that have led to results so disastrous, we have studiously endeavored to avoid. This book teaches that strong and dangerous drugs should be banished from domestic practice, and that the milder remedies of this class, together with the hygienic agents, should constitute the great staples of home treatment.

Part IV. is devoted to the Diseases and Accidents of Child-bed, and the Special Hygiene of Lying-in Women. The information herein imparted will be of incalculable benefit in guarding women against the evils arising from ignorance and malpractice on the part of attendants, and in enabling them to assist themselves in the absence of any other aid.

Part V. treats of the Hygiene and Principal Diseases of Children, and the Nursing Life of Woman. This is a most important addition which has been made to this edition, making the work, in connection with the other parts, truly a comprehensive "Home Book" for woman,

embracing, as it does, all the essential features and phases of her PHYSICAL LIFE, as MAIDEN, WIFE and MOTHER.

Besides this part, this edition contains most valuable new matter, on Conception; the Limitation of Offspring; the Procreation of Beautiful and Healthy Children; Procured Abortion; and the prevention of the Diseases of Pregnancy, and the Pains of Childbirth, without the use of drugs.

NECESSITY FOR THE WORK.—After what has been said, it is needless to multiply words on this point. While woman has shared the evils to which we have adverted, in common with the rest of the human family, her sufferings have been of a peculiar and aggravated nature. This is the result of her dependent condition—of the peculiarities of her physical organization—of the special duties imposed on her as a mother—and above all, of her blind subserviency to the unreasonable restrictions, and the health-destroying fashions and customs of society. And yet, while thus exposed in an eminent degree to disease, her dependence on man for aid and counsel, and her native modesty, subject her to peculiar disadvantages in seeking relief. This work is intended to obviate some of those difficulties; and we are sure that those for whom it is designed will gladly welcome a friend that will forewarn them of the dangers at which we have hinted—that will show them the way of health—and that may be consulted under the most trying and delicate circumstances without the least reserve. Women, by virtue of their natural and social relations, have more to do with health and disease, than all the doctors in the world; they are our nurses in sickness; they are the mothers and trainers of our children; and hence they can do more to remove the diseases that afflict the human family than all the world besides. How important then, that they should

be put in possession of that medical and hygienic knowledge which will qualify them for the great duties devolving upon them.

ATLANTA, GA., *August, 1873.*

NOTE.—Some questions, not entirely devoid of interest, yet not meriting an extended notice in the body of this work, are briefly considered on page 436, to which the reader is referred. Some of the most important subjects of the notes may be mentioned here. They are these: The Marriageable Age. Shall Cousins Marry? Shall Whites and Blacks Inter-marry? Shall Different Nations Inter-marry? The Hygiene of Puberty. The Time of the Year to Marry. Shall Husband and Wife Sleep Together? Beautiful Children, etc., etc.

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PART FIRST.

A BRIEF DESCRIPTION OF THE STRUCTURE AND FUNCTIONS OF THE HUMAN BODY.

WITHOUT SOME KNOWLEDGE OF ANATOMY AND PHYSIOLOGY, DIRECTIONS FOR THE PRESERVATION OF HEALTH CANNOT BE UNDERSTOOD OR APPRECIATED — SYMPTOMS ARE WITHOUT MEANING, AND THE USE OF REMEDIES IS A BLIND EXPERIMENT.

CHAPTER I.

ANATOMY OF THE HUMAN BODY.

ANATOMY DEFINED, &c.—Anatomy treats of the structure of *organized* bodies, such as plants and animals. These are called organized, because they consist of an assemblage of parts or organs, associated together for the performance of special offices. The union of several organs for the accomplishment of one or more ends constitutes a *system*, as the nervous system, composed of the brain, spinal cord, nerves, &c.: the blood-vessel system, consisting of the heart, arteries, and veins, &c., &c.

ANATOMICAL AND CHEMICAL CONSTITUENTS.—The human body consists anatomically of solids and fluids: Chemically, oxygen, hydrogen, nitrogen, carbon, and lime are the principal constituents; while iron, sulphur, sodium, and several other elements are considered *essential* components by most physiologists. These chemical elements, variously combined, form the different *tissues*, as the muscular tissue, the nervous tissue, &c., &c. The fluids constitute much the larger portion of the human body: the principal fluids are the blood, chyle, lymph, spittle, gastric juice, bile, sweat, urine, &c.

The Bones.

THEIR STRUCTURE.—Bones are formed of cartilage, or gristle, and lime principally. The gristle gives form, and the lime gives firmness. When the lime is in excess, the bones are brittle and easily broken, as is often the case with old people. In children the bones are soft and flexible, and hence mothers should not encourage their children in premature efforts at walking, if they would avoid bow-legs and knock-knees. The bones are supplied with blood-vessels, and, though destitute of sensibility in a healthy state, are highly sensitive when diseased.

The human skeleton is composed of 246 bones, not counting some of the smaller ones.

THE BONES OF THE CHEST AND SPINE.—These bones, through the fashions and habits of modern society, are much exposed to injury, and therefore it is important that every woman should know something of their structure. The bony chest or "breast" consists of twelve ribs on each side, of a portion of the back-bone behind, and of the broad, flat breast-bone in front, between the ends of the ribs. The upper ribs are attached to the back-bone behind and to the breast-bone in front by cartilage or gristle; while the lower ribs are not united directly to this bone, but are connected with each other by gristle, or float loosely without support in front. The ribs are placed obliquely, the front end being lower than the one behind. It will be readily seen then how compressible the chest must be, for the cartilages easily yield to any force from without, and thus the ribs are depressed and the cavity of the chest diminished. The lungs within being as unresisting as

air itself, the chest may be compressed almost indefinitely; and especially if this be done gradually, so that the vital organs within may accommodate themselves to their diminished space.

STRUCTURE AND MOTIONS OF THE SPINE.—The vertebral column or "back-bone" consists of twenty-four bones, each united to the other by an elastic, compressible cushion. The spine is the central axis of the body, and sustains the whole weight of the head, trunk, and arms. Each separate bone composing this column has a certain degree of motion, one on the other. And though the motion of each bone is very small, yet it is manifest that a very slight yielding of all would cause considerable bending of the spine. Besides this the back-bone naturally bends forward about the middle, and it is therefore not surprising that weakness and relaxation of the muscles of the back should so increase this natural curve as to cause actual disease and deformity; for these muscles are the principal agents in keeping the spine erect. Shall we then, even indirectly, cast an imputation on the work of the great Architect? No; for though the spine bends forwards, it is done for a wise purpose, and the ligaments and muscles are amply sufficient to keep the spine from bending forward too much, if they are not paralyzed by inaction, or compression.

The Muscles.

"That soft, fibrous, red-colored substance which constitutes so large a portion of the volume of the more perfect animals, is called *flesh or muscle.*" This flesh, or muscular tissue, is composed of bundles of fibres of variable size, enclosed in a mem-

brane or sheath: these bundles are composed of smaller bundles enclosed in the same way, and these again of ultimate microscopic fibrils, each enclosed in a very delicate membrane. All these bundles and fibres are held together by a delicate web-like tissue, and this tissue also lies between the different muscles and the skin. The muscles are attached to the bones by glistening cords called tendons or "sinews." The fixed point of a muscle is called its *origin*, and the movable, its *insertion*. The muscles are not only the agents by which we perform all our voluntary movements—they play an important part in digestion, circulation, &c.; for the heart is a hollow muscle, while the stomach, bowels, bladder, and other organs are each provided with muscles which do their work without the agency of our will. As already intimated, the muscles have much to do with keeping the body erect, and in preventing it from falling forward. The large muscles on the back part of the leg, thigh, loins, and spine are the principal agents in maintaining the erect position, and if these muscles are enfeebled by inaction or compression, deformity and ungracefulness must inevitably ensue. The muscles have much to do with the *expression;* for while the immortal mind is the sunlight of the features, the muscles which compose those features may be compared to the polished plate of the Daguerrean, for on them the lights and shadows of the mind are *permanently* engraved: they reflect not only the transient gleam of passion, but they are the *living, speaking* embodiments of those feelings that habitually sway the heart.

THE MUSCLES OF EXPRESSION.—The most expres-

sive muscles are some very small ones, with very long names, about the nose and mouth.

Those who would cultivate beauty should never forget that the lights and shadows of the face are not always like summer clouds and sunshine—that indulgence in evil passions will give the countenance a permanent wintery hue, while the opposite feelings will cause the features to glow in radiant smiles, or to rest in placid winning beauty, like moonbeams on an unruffled lake. Who has not observed the contrast between the depressed, sharp, withered expression of grief and anxiety, and the elevated, smooth features of cheerfulness and mirth, even when the passions are hushed in the deep repose of profound sleep?

The Nerves.

Divisions of the Nervous System.—There are two grand divisions of the nervous system: the *cerebro-spinal* and the *organic*. The former includes the nerves of sensation and motion, the brain and spinal marrow: the latter embraces the nerves and ganglions that preside over the organic functions, and has therefore been called the *organic system*.

The Brain.—The brain fills the cavity of the skull: its principal divisions are the *cerebrum*, the *cerebellum*, and the *medulla oblongata*. The cavity of the skull is lined by a thick tough membrame (dura mater) which covers the brain and protects it from injury.

The *cerebrum* is the seat of mind, and does not exist in the lower classes of animals. It constitutes much the larger portion of the brain, yet only a comparitively small portion of it is appropriated to the mind. The *cerebellum*, or little brain, is situated in the lower

and back part of the cavity of the skull: in its general structure it resembles the cerebrum. The *medulla oblongata* may be considered as a prolongation of the spinal marrow into the skull, and is the connecting link between the brain and spinal marrow proper.

The spinal marrow is that important portion of the nervous system which extends from the head down through the whole length of the back-bone. It gives origin to the nerves of feeling and motion distributed throughout the body.—The nerve fibre differs from the muscular, in being hollow; and it is supposed that these exceedingly minute tubes are continuous from the origin of the nervous trunk to those inconceivably small ramifications spread out so thickly through every part of the body, that the point of a pin cannot be put down without touching one. In view of such a wonderful mechanism as this, well may we exclaim with astonishment,—

> "Strange that a harp of thousand strings,
> Should keep in tune so long."

The *organic* nerves preside over the great vital functions of digestion, circulation, &c., but we cannot undertake to describe them.

The Arteries, Veins, and Lymphatics.

Divisions of the Vascular System.—This system consists of the heart, or central organ of circulation; the blood-vessels, consisting of the arteries, veins, and capillaries; and the lymphatics, or lymph-vessels.

The Heart.—This important organ is situated in the left side of the chest between the lungs. It is divided into two auricles and two ventricles: an auricle and a ventricle form the *right side* of the heart, consti-

tuting the *right auricle* and the *right ventricle;* and the structure of the left side is identical, and thus we have the *left auricle* and the *left ventricle.* From the heart proceed the arteries which convey the blood to every part of the body. The *aorta,* or great artery, begins at the left ventricle of the heart, and dividing into innumerable ramifications, conveys the blood to every part of the body. This is called the *systemic* circulation, because it supplies the system at large. From the *right* ventricle of the heart arises the *pulmonary* artery, which conveys the blood to the lungs, from whence it is returned by the pulmonary veins to the *left auricle* of the heart: this is the *lesser,* or *pulmonary circulation.* Each auricle communicates with its corresponding ventricle by a beautiful valvular arrangement which prevents the blood from flowing backwards; and a similar arrangement exists where the ventricles open into the arteries. The pulmonary artery divides into two main branches, one of which goes to each lung, and then these branches divide and subdivide until they reach those inconceivably minute ramifications which extend through the whole substance of the lungs, and spread over the little air vesicles that form the termination of the bronchial tubes.

THE VEINS.—The veins commence in exceedingly minute radicles or roots in every part of the system; and these roots or small streams unite to form larger and larger ones, until they finally terminate in two large veins that empty into the *right auricle* of the heart. One of these trunks *ascends* from below, and is called the great ascending vein: the other *descends* from above, and is called the great descending vein.

THE CAPILLARIES.—Between the small arterial branches and the beginning of the venous radicles is found that highly important system of vessels called the capillary, or hair-like, from their exceeding minuteness. These vessels pervade every part of the body, and effect some of the most interesting and important changes of the animal economy.

THE LYMPHATICS.—The lymphatic vessels with the lacteals constitute the *absorbent system*. They are called lymphatics because they convey a colorless fluid destitute of red particles. The office of the absorbents is to collect the worn-out and waste matters from every part of the body, and the nutritive chyle from the bowels. It will be seen then that the absorbent system is composed of two classes or vessels: one class includes the *lymphatics proper*. These originate in a delicate network spread through almost every part of the body; and then, passing through the *lymphatic glands*, finally terminate in the thoracic duct, yet to be described. The chyle vessels begin in the upper part of the bowels, and also empty into the thoracic duct.

Of the Skin.

This important membrane is continuous with the mucous membrane that lines the internal cavities, as the lungs, the throat, the stomach, &c. The sympathy between these parts is very close, and should be well understood by all who would undertake the cure of disease. The skin is composed of an internal coat called the *true* skin and an external one called the scarf-skin. The true skin is abundantly supplied with

blood-vessels, lymphatics, and nerves, the little eminences on its surface each containing minute vessels, &c. The scarf-skin is the very thin horny membrane spread over the true skin. This is perforated by innumerable small openings called pores, for the passage of perspiration, &c. The nails and hair are part of the scarf-skin. The sebaceous glands of the skin secrete an oily fluid that keeps the skin smooth and soft. The little *sweat-glands* are very numerous, consisting of small tubes rolled up together. According to Mr. Erasmus Wilson, the number of pores which form the openings of these glands, average 2800 to every square inch throughout the body. From this it has been calculated that the number of perspiratory pores amounts to the enormous sum of *seven millions*, while the length of the tubes that form the perspiratory glands would be 28 *miles*.

These figures are introduced to give some idea of the extent and importance of the secretion from the skin.

The Internal Vital Organs.

THE LUNGS.—The lungs or "lights," with their *appendages*, are the organs of voice and respiration or breathing. The lungs are placed in the cavity of the chest, on each side of the heart, which lies between them, and which has already been described. There are two lungs completely filling the cavity of the chest, with nothing between them and the ribs except the thin membrane called the *pleura*. The base or bottom of the lungs rests on the *diaphragm* or midriff. This diaphragm is a dense membrane that divides the lungs

from the stomach, liver, and other contents of the cavity of the belly.

Structure of the Lungs.—In their structure the lungs are composed of the ramifications of the bronchial tubes—the minute divisions of the pulmonary artery and veins—of lymphatics, nerves, &c., the whole being held together by a delicate web-like tissue. This tissue constitutes the *substance* of the lungs, and is the seat of *pneumonia*. The bronchial tubes are the tubes into which the windpipe divides. They divide and subdivide into exceedingly minute branches, and finally terminate in the *air-cells*. The pulmonary artery spreads its minute branches over the walls of these little cells, and thus the blood is oxygenized by the air, and converted into *arterial* blood. The lining of the bronchial tubes is the seat of the disease called *bronchitis*, which is an inflammation of the bronchial mucous membrane.

The Pleura.—The pleura is a smooth, serous or watery membrane that lines the walls of the chest, and is then reflected or turned back in such a way as to form a complete covering for the lungs. The pleura secretes a watery fluid, intended to promote free motion between the lungs and the walls of the chest. This fluid is sometimes so increased by disease as to compress and push back the lung, constituting dropsy of the chest. The water may gather on one side of the chest and not on the other. "Pleurisy" is an inflammation of the pleura.

The Larynx and Trachea.—The larynx is the short, funnel-shaped, or hour-glass expansion which forms the opening from the windpipe into the throat.

One of its cartilages constitutes the prominence in men known as "Adam's Apple." The larynx opens into the "gullet" by a small chink, the *glottis,* which is closed in the act of swallowing by a tongue-like cartilage called the *epiglottis.* This little valve or door can be seen when the mouth is widely opened and the tongue is pressed down. In the larynx are found the ligaments called vocal chords, intended to modulate the voice.

THE DIGESTIVE OR ALIMENTARY CANAL.—This important canal commences at the mouth and terminates at the *anus* or "fundament." It consists of the *mouth,* the *gullet,* the *swallow,* the *stomach,* and the *bowels.* The bowels are divided into the *large* and *small intestines.* The upper part of the small intestines is called the *duodenum,* or lesser stomach, as digestion is completed in this part. The lower part of the large intestines is called the *rectum* or "straight gut."

THE STOMACH.—This very important organ lies just *below* the midriff, and *behind* the depression beneath the breast-bone, known among the people as the "pit of the stomach." It has two openings: into one the swallow opens, and the other opens into that portion of the small bowels called the *duodenum.* The stomach is lined with a mucous membrane which is continuous from the mouth down to the fundament. The stomach and all the organs of the belly are covered with a serous or watery coat similar to the pleura. It has the same office as the pleura, and an accumulation of water in it constitutes "dropsy of the belly."

THE BOWELS.—The bowels are about thirty feet

long. Into the upper portion empty the ducts of the liver and pancreas. The rectum, or straight gut, is the lowest part of the bowels, terminating in the anus. The whole intestinal canal is provided with muscles arranged in a circular manner, so as to propel the contents downwards by a slow gentle movement called the *peristaltic* motion.

THE LIVER.—This organ is situated in the right side, just under the short ribs. The bile is conveyed into the *duodenum* by a common duct arising from the union of the duct from the liver and that from the gall-bladder.

CHAPTER II.

THE FUNCTIONS OF THE BODY—PHYSIOLOGY.

MAN A MASS OF LITTLE CELLS.—All the varied forms of animal and vegetable life consist of a number of little cells united together in various ways: the muscles, nerves, arteries, veins, &c., &c., are but cells which have been modified in size and shape to answer some special purpose. We are led then to this startling conclusion: *man in his pride of body and mind, with his symmetrical form, and his towering intellect, is nothing but a mass of little honey-comb cells, like the grass, or the tiny flower beneath his feet!* Oh, the wisdom of the Divine Mind! to accomplish such wonders with such simple materials! Who but God could arrange

and aggregate a countless number of delicate and invisible honey-comb cells in such a manner as to give form and motion, thought and feeling, and all the wonderful phenomena of life!!

THE MIND.—The *cerebrum* is conceded by all parties to be the seat of mind. The *cerebellum* seems to act as a kind of *regulator* of muscular movements. The brain is a double organ, one-half being the exact counterpart of the other. The brain, including all its parts, is the presiding centre of *sensation, voluntary motion,* and the *passions* or *propensities.* The convolutions on the external surface of the cerebrum are the seat of all the intellectual faculties. The cerebrum is found only in the higher order of animals, and in *man only* is it fully and perfectly developed.

The mind must not be confounded with the soul: the latter is that divine, spiritual, immortal, and immaterial principle which, acting through the brain, gives origin to all those manifestations, emotional and intellectual, embraced in the comprehensive word *mind.*

TWO DIVISIONS OF MIND.—All mental manifestations may be embraced under two heads: 1st. The Faculties; and 2d. The Propensities. The former includes the intellectual powers, and the latter the passions or impulses that move to action. The faculties are subdivided into the perceptive and reflective faculties; the propensities into the domestic, social, moral, &c.

HOW IDEAS ARE FORMED.—The propensities or emotional feelings are excited through the medium of the organs of sense, the eye, the ear, &c., and the impressions thus made become the materials of the higher

mental processes belonging to the intellectual faculties. In other words, the impressions made through the senses, by which we hold communication with the external world, are the raw materials manufactured into *ideas.* Or, to extend the comparison, the brain may be considered as the complicated machinery of a steam-engine; the soul is the steam that moves the machinery, while the senses, seeing, hearing, &c., are the feeders supplying the materials for the emotional feelings which are finally "worked up" into ideas by the intellectual powers.

Power and Happiness.—The mind consists, then, essentially of faculties and feelings, or thoughts and affections. The high development of the former gives that knowledge which is power: the cultivation and proper direction of the latter confers a more desirable boon even than this:—*right feeling* is the source, and the only source, of that *true* happiness for which mortals sigh. From the cultivation of the domestic propensities spring those pure and peaceful joys that cluster around family and home,—joys that need only to be mentioned, to thrill the bosom of every true wife and mother. From the social feelings are realized all those delights originating in friendship and society. And *above all,* we have those high and holy moral feelings by which we are allied to angels, and to Divinity: feelings, which, when directed, subordinated, and controlled by *religion,* cause us to submit to the ills of life with patience and resignation; which enable us to look upon the transitory things of earth as *nothing,* when compared with the joys of a higher, purer, better state of existence.

The Senses.—Sense of Smell.

DOES NOT ALWAYS PROTECT AGAINST DISEASES.—The sense of smell may be considered as a sentinel or outpost of the stomach, intended to guard the door of that important organ. It also serves to protect the respiratory passages by warning us of the presence of hurtful effluvia; but its use in this way is more limited than we might suppose, from the fact that some of the most health-destroying aeriform emanations make no sensible impression on the nerves of smelling. This is particularly true of the effluvia that cause chill and fever, small-pox, measles, &c., &c.

SMELL INJURED BY SNUFF.—The sensibility of the nerve of smelling, is blunted and perverted by all strong irritating odors and substances. Hence those who would preserve all the senses which God has given them, should eschew the use of snuff, smelling-salts, &c. A good smell is necessary to a good taste, as is manifest to those who have been troubled much with "cold in the head."

Sense of Sight.

OFFICES OF DIFFERENT PARTS OF THE EYE.—The principal parts of the eye are the *sclerotic* coat, which gives form and firmness; the *cornea*, in front of this, for the transmission of the rays of light; the *iris*, which by its contractions and expansions regulates the quantity of light; the *pupil*, opening through the iris, and serving as a door for the admission of the luminous rays; and the *retina*, or expansion of the optic nerve, on which the image of objects is represented like the face in a glass.

THE PUPIL IN DISEASE.—The state of the pupil is a

valuable symptom in head affections. When the functions of the brain are interrupted by compression, apoplexy, opiates, &c., the pupil is dilated because the optic nerve, which is associated in action with the pupil, is less sensitive to light. On the other hand, when the brain is excited from inflammation, insanity, &c., the optic nerve becomes more sensitive, and the pupil contracts. Hence the necessity for darkening the room in such cases.

The Sense of Hearing.

PRINCIPLES ON WHICH THE EAR IS MADE.—The whole complex structure of the ear has reference to two principles—the propagation of sonorous vibrations, and their multiplication by resonance. Sounds are gathered by the trumpet-shaped external ear, and then falling on the drum of the ear, this is thrown into vibrations, and these vibrations are communicated to the nerve of hearing by a little chain of bones, and many other nice arrangements which we cannot stop to describe.

The Sense of Taste.

MUCH INFLUENCED BY EDUCATION.—No sense is more under the influence of education, than the taste, and none is more blunted, perverted, and depraved by bad habits. There can be but little doubt that the taste for coffee, tea, spirituous liquors, tobacco, and many spices and condiments is acquired, and not natural. The object of taste is to minister to our gratification, and to direct us to some extent as to the suitableness of our food. But even in its natural unperverted state it cannot be considered as an unerring guide; and if this be

true, how unreliable must be the artificial tastes of civilized life!

Let not persistence, then, in the use of tobacco, spices, and highly seasoned food and drinks, be justified on the ground that the taste for these things is natural—that the *desire* for them exists, and therefore that they are necessary and harmless. If our *natural unperverted* taste must be directed and controlled by reason and experience, it is the extreme of folly to claim as infallible, the dictates of a sense which has been so blunted by habit as to require the stimulus of some unnatural excitant to arouse it to action. When the nerves of taste have been goaded by the over excitement of sharp, penetrating matters, they are just as incapable of a proper and healthful performance of their functions, as the eye is when dazzled by excessive light; or the ear, when stunned by the roar of a cannon.

The Sense of Touch.

Its Seat, &c.—The sense of touch exists in the skin generally, and more particularly in the lips, the tongue, and the tips of the fingers.

Like all the other senses, the touch may be wonderfully improved by education, as is proved by the reading of the blind by means of raised letters. It has been said that this sense has become so delicate in some blind persons as to enable them to distinguish *colors* by feeling!

Life-Sustaining Physiology—Digestion.

The different Stages of Digestion.—Digestion is the process by which our food is converted into chyle, a white, milky fluid, which is finally changed into blood. By the act of chewing, the food is divided

and mixed with the saliva or spittle, and thus it is softened and prepared for the stomach. The food having been thus acted on in the mouth it is then swallowed, and in the stomach it comes in contact with the *gastric juice*, by which it is converted into a pulpy mass called *chyme*. This chyme then passes through the lower orifice of the stomach into the duodenum, where, by the action of the bile, and pancreatic juice, it is changed into chyle.

Gastric Juice—Stomach—How Restored.—The gastric juice is an acid secretion of remarkable solvent powers. It is well known that pepsine (one of the constituents of gastric juice), obtained from the stomachs of the lower animals, has been much recommended of late years, in dyspepsia or difficult digestion. But while the use of pepsine, &c., may palliate present symptoms, it should never be forgotten that this is only a temporary expedient, and that the tone of the stomach can be permanently restored only by attention to diet, drinks, and the laws of health generally.

Drinks, Temperature, &c.—Temperature has much to do with digestion: Hence, the use of large quantities of cold water and ice at meals, or soon after, must retard digestion, both by reducing the temperature of the stomach, and by diluting the gastric juice.

Quantity of Gastric Juice, Salt, &c.—The quantity of gastric juice secreted, is not regulated by the amount of food taken, but by the wants of the system. And, "as only a definite quantity of food can be acted on by a given amount of gastric juice, any superfluity remains undissolved for some time—either continuing in the stomach until a fresh supply of the solvent is secreted, or passing into the intestinal canal (bowels)

in a crude state, and becoming a source of irritation, pain, and disease." The use of salt, pepper, mustard, and other stimulants, increases the quantity of gastric juice, but their constant or excessive use must finally interfere seriously with the digestive process, by causing irritation, inflammation, or ulceration of the lining membrane of the stomach.

OVER-EATING.—The same effects will ensue from excessive indulgence in the pleasures of the table; for however suitable and nutritious our food may be, any portion remaining undissolved, must be a source of irritation and disease. And though the effects of over-eating may not be immediately manifest, yet they will assuredly follow, sooner or later, in the form of dryness of the mouth, thirst, quick pulse, foul tongue, feverishness, and other symptoms indicating that the secretion of the digestive fluid is suspended, as a consequence of the constant and excessive excitement to which the stomach has been subjected.

HOW FLUIDS ARE ABSORBED BY THE STOMACH.—While the chyle passes from the duodenum into the circulation through a special set of vessels, water, and other things in a state of *perfect solution* are absorbed by the blood-vessels spread out on the mucous membrane of the stomach. This will account for the rapidity with which certain poisons affect the whole system—sometimes even before any symptoms of their action on the stomach are seen.

WE SHOULD FOLLOW NATURE.—Hunger and thirst are indications of the natural wants of the system, and except in some rare cases, we should not eat nor drink unless we have these natural promptings. But, how often is this plain and reasonable law violated! How

often do we eat and drink because it is fashionable, because we have nothing else to do, or for the mere gratification of the palate! And from thence proceed

> "All maladies,
> Ghastly spasm, or racking torture, qualms
> Of heart-sick agony; all feverish kinds;
> Convulsions, epilipsies, fierce catarrhs;
> Intestine stone and ulcers; colic pangs,
> Demoniac phrenzy, moping melancholy,
> And moonstruck madness; pining atrophy,
> Marasmus, and wide-wasting pestilence;
> Dropsies and asthmas, and joint-racking rheums."

Absorption and Circulation.

THE LACTEALS AND LYMPHATICS.—The lacteals take up the chyle from the small intestines, and thus it enters the circulation of the blood, for the replenishment of this fluid. (For an account of the Lymphatics see page 30.)

CIRCULATION OF THE BLOOD—THE PULSE.—The *arteries* convey the blood *from* the heart, the *veins return* it to that organ; and between the arteries and veins is a system of vessels called the *capillaries*. The *pulse* is caused by the contraction of the heart propelling the blood through the artery. The pulse is most frequent in infancy, and gradually diminishes in frequency with the advance of age. In early life the pulsations are from 100 to 130 in a minute; in old age from 50 to 65, while the average of middle life is from 65 to 75. As a general rule the pulse is more frequent in women than in men; the average in a woman of middle age being from 75 to 85. As the pulse is a very important symptom in disease, it is highly necessary to know something of its natural frequency.

Respiration.

RESPIRATION DEFINED.—Respiration, or breathing, is that function by which the blood is aerated, purified, and fitted for the important offices for which it is designed as the vital, nourishing, repairing, and all-sustaining "circulating fluid."

OFFICE OF THE LUNGS.—The lungs have a twofold office: by the act of breathing, the waste matters, and particularly the excess of carbon, is thrown off, while oxygen or vital air is absorbed. It is also the opinion of some that the lungs receive and transmit electric currents. The lungs also absorb a large amount of moisture from the atmosphere under certain circumstances.

COMPOSITION OF THE ATMOSPHERE.—In one hundred parts the atmosphere contains twenty-two parts of oxygen, seventy-seven of nitrogen, and one of carbonic acid gas. These constituents are found to be the same in all latitudes, in valleys, and on the tops of mountains. Chemical analysis has never yet discovered the deadly agent that causes the periodical fevers so common in the South and West.

CHANGES OF THE BLOOD BY RESPIRATION.—By the action of the air in the lungs, the blood is vitalized, and changed from dark venous blood into bright arterial blood. The vital fluid is then said to be *decarbonized* and *oxygenized*, and thus is it fitted for building up every part of the body.

THE AIR-CELLS.—The bronchial tubes terminate in minute air-cells. These cells are separated from each other by a very thin membrane, and on this membrane

ramify the very small capillary vessels, so that the blood is exposed to the air on both sides. While the blood is circulating through these vessels, oxygen passes in through their coats, and carbonic acid gas escapes in the same way. The number of air-cells in the human lungs has been estimated at *six hundred millions!*

THE BREATHING CAPACITY.—The capacity of the lungs for the reception of air varies greatly in different individuals; but this capacity may be much increased by exercising the muscles of the chest, and by drawing in the breath deep and long. The breathing muscles may be trained and strengthened by exercise, like the muscles of the arm or any other part.

PRINCIPAL AGENTS IN BREATHING.—These are the muscles of the chest and belly, and the *diaphragm* or midriff; the latter being the muscular partition between the chest and belly. Inspiration, or breathing *in*, is mainly effected by the diaphragm and the muscles of the chest; and expiration, or breathing *out*, by the muscles of the abdomen.

PROPORTION BETWEEN BREATHING AND PULSE.—The number of respirations in a given time depends greatly on the frequency of the pulse, and the state of mind and body, yet there is a certain proportion between the action of the heart and lungs that will generally be found to exist. The average number of respirations per minute may be stated at from 15 to 18, and the proportion between the pulsations and respirations about four or five pulsations to one respiration. Any marked deviation from these figures generally in-

dicates disease; and the want of proportion is more likely to be seen in lung affections.

HEAT—A UNIFORM STANDARD.—The generation of heat is part of the respiratory process. One of the most remarkable things connected with the animal economy is its power of regulating its temperature so as to preserve a uniform standard in all climates. The great regulator of temperature is the skin, for the stimulus of heat causes it to perspire, and the fluid thrown off is immediately converted into vapor, by which any excess of heat is abstracted. On the contrary, when the body is exposed to cold, the transpiration from the skin ceases to a great extent, and thus the heat generated is retained.

Nutrition.

THE GRAND FINISHING PROCESS.—Nutrition is the *actual conversion of nutritive elements into the substance of our bodies*—it is the end and aim of all the digestive processes described. This grand finishing process of digestion is performed in that interesting system of vessels—the capillaries. These vessels pervade every organized texture of the body, and many of them are so exceedingly minute that only a single red particle of blood can pass at the same time.

WHAT WE KNOW ABOUT NUTRITION.—The nutritive elements are contained in the arteries, and are conveyed to these by the capillaries, and passing through the coats of these little vessels, they are converted into the various tissues of the body, while all these tissues are made up of minute honey-comb cells, arranged sometimes in one way, and sometimes in another. Thus are

formed the brain, the muscles, the bones, and every part of the body.

SOME OF THE DISEASES OF NUTRITION.—Wens, and various kinds of tumors, are caused by an "error in nutrition," by which is understood a morbid deposition in a part without assimilation or conversion. Consumption belongs to this class of diseases; and so does excessive fatness, which, in some cases, is a real disease. Still a *moderate* accumulation of fat is entirely compatible with health, and highly conducive to beauty, by giving that rotundity of form, that charming *embonpoint*, so attractive in women. Besides this, fatness seems to promote cheerfulness and good-nature; for fat men and women are generally smiling and even-tempered; but whether the good-nature is the result of the fatness, or the fatness of the good-nature, is a debatable point. Still we think that the old adage, "Laugh and grow fat." might with equal propriety be rendered, Grow fat and laugh.

HOW OFTEN IS THE BODY RENEWED?—It is a common opinion that the body is renewed every seven years—that every particle of old matter is thrown off in this time, and that we then come forth with new bodies. This may be an approximation to the truth, but there can be no doubt that the process of repair and decay is much influenced by our habits of life, and especially by the amount of exercise, and the nature of our food.

The Secretions and Excretions.

THE DIFFERENT SECRETIONS.—Each organ and structure secretes, or separates its own peculiar fluid: those secretions that are intended for the use of the animal

economy are called *recrementitious;* they are the chyle, gastric juice, saliva, mucus, &c., &c. Those secretions that are intended to rid the body of waste and injurious matters, are commonly called "*excrements.*" To this class belong sweat, urine, the discharges from the bowels, &c.

THE MUCOUS SECRETION.—The cavities of the body opening externally, as the nose, mouth, windpipe, bladder, sexual organs, &c., are lined with a mucous membrane that secretes a slimy fluid called *mucus:* this fluid keeps the parts over which it is spread, smooth and moist, and shields them from injury and irritation.

WOMAN'S TEARS.—The only other secretion that we shall notice is the tears secreted by the *lachrymal gland.* Physiologically the office of the tears is to moisten the eye-ball, and to cleanse and protect it. And who can tell the *moral* influence of a tear, and especially a *woman's* tears? For, "Beauty's tears are lovelier than her smiles," says Campbell. And Byron, who had often felt the potent spell, thus describes it:—

> "Oh! too convincing—dangerously dear
> In woman's eye, the unanswerable tear!
> That weapon of her weakness, which can wield
> To save—subdue—at once her spear and shield."

EXCRETION FROM THE SKIN.—The skin not only maintains a uniform standard of temperature; it is also one of the most important cleansing organs, freeing the blood of a vast amount of matters that would be highly injurious if retained. The great extent of the perspiratory tubes has already been noticed. And it should be remembered that this extensive secretory surface

is constantly in action, even when the secretion is not sufficiently rapid to stand in drops of sweat: the *insensible* perspiration never ceases, when the skin is in a healthy condition; but an invisible vapor charged with various matters, is constantly rising, like steam, from the surface of the body. The amount of *solid* matter thus thrown off, has been estimated at one hundred grains per day; and the whole amount of solids passing from the skin and lungs both, has been reckoned at from 1¼lbs. to 5lbs. in twenty-four hours.

Urinary Excretion, Stone and Gravel.—The kidneys eliminate from the system a large amount of various salts, earthy matters, and nitrogen. Some of these solid elements of the urine are sometimes deposited in the kidneys or bladder, constituting *stone* and *gravel*. If the urinary secretion be suspended for any length of time, *death* ensues, with symptoms of stupor, or brain-poisoning: a conclusive evidence of the importance of the cleansing office of the kidneys.

The Evacuations from the Bowels.—The office of the bowels is to pass off the "excrements" or the remains of our food after the digestible part has been dissolved and taken up by the lacteals, and conveyed into the blood. Neglect of this evacuation, and especially by women, is a prolific source of disease: this subject will be discussed more fully in the hygienic department of this work.

Vicarious Action—Important Rule.—A very interesting feature of the excretory or cleansing organs

is their *vicarious* action. By this is understood the power of one organ to act for another; or to take on increased action, when the functions of an associated organ are suspended. To illustrate—the skin and kidneys are intimately associated in their functions; and when the action of the skin is interrupted from cold, or any other cause, the kidneys perform double duty, and the urinary secretion is much increased. This is manifest to every one who has noticed the effects of a change of weather from warm to cold. The *sympathy*, as it is called, between the skin and the mucous membrane lining the air-passages, and the bowels, is very close; and hence, the "bowel complaints," "colds in the head," coughs, &c., &c., that ensue when the functions of the skin are interrupted by exposure to cold, or by a sudden change of weather. In these cases, if the bowels and lungs did not relieve themselves by an increased discharge, or if the skin did not resume its action, inflammation would result. These facts are highly important both in the prevention and treatment of disease.

Without going into details, we give one *very important* rule: When an organ is feeble and incapable of performing its functions properly, it should be relieved by acting, as far as possible, on the organ associated by sympathy with the one so diseased. And when an organ takes on an increased discharge to supply the place of another discharge, which is suppressed, we should be very slow to check the increased action until the suppression is removed.

On this principle we resort to sweating remedies in

lung affections, bowel affections, &c. And on the same principle we should mind how we check discharges, from the bowels, lungs, or womb, unless means are used to restore the functions of the skin.

CHAPTER III.

DESCRIPTION OF THE SEXUAL ORGANS OF WOMAN, OR THE AGENTS OF PROPAGATING LIFE.

"To the pure, all things are pure."

THE BONY PELVIS.—This is an irregular oval cavity formed by the bones between the lower end of the back-bone, and the hip joints, or heads of the thigh bones. The pelvis is usually spoken of as consisting of three distinct bones, though these are united in one in grown persons. The *upper* and larger division is the hip or "haunch-bone." This is the bone that spreads out like wings on each side, giving such width to the hips of women. The *front* bone is the *pubis*, or as it is commonly called, the "cross-bone." The *lower* bone is the *ischium*, or "sitting-bone," it being the bone on which we rest in the sitting posture.

These bones form the front and sides of the pelvis. Behind is the *sacrum*. This is a wedge-shaped bone, with the broad end upward and joined to the lower end of the spine, of which it may be considered a continuation. The sacrum is wedged in between the hip bones on each side, forming the bond of union between them.

THE CAVITY OF THE PELVIS.—The bones described are all united together in such a manner as to form an irregular cavity, approaching a circle: this is the *cavity of the pelvis*, a most important part of the anatomy of woman. This cavity contains all the internal organs of generation, yet to be noticed, together with the organs connected with these—as the bladder, the straight gut, &c. A knowledge of the size, shape, and direction of this cavity is highly important to the practitioner of Midwifery; and no one should be allowed to interfere, by way of changing the position of the child, who does not possess this knowledge.

The External Organs of Generation.

THE MONS VENERIS.—This is the prominent, fatty mass in front of the cross-bone.

THE LABIA MAJORA, &C.—The *labia majora* or greater lips are the folds on each side, below the *mons veneris*. Within these are the folds called the lesser lips or *nymphæ*. The *clitoris* is the small teat-like body in front of the cross-bone. Among the external organs of generation might be mentioned the *hymen*. This is a thin membrane that partially closes the *vagina*, or passage to the womb, and has commonly been considered as the seal of virginity. But it is liable to rupture from various causes. This membrane sometimes offers a serious impediment to the monthly discharge.

DISEASES—MODESTY—HEALTH.—The parts just described are lined by a very delicate mucous membrane, which is liable to a great variety of diseases; and hence, the necessity for describing things of which

modesty blushes even to *think*. But modesty, though it is the brightest gem in the beauteous diadem of female loveliness, should not be prized above that knowledge which is necessary, in many instances, to health, and even life itself. "To the pure, all things are pure;" and no refined and virtuous woman will ever be injured by familiarizing herself with the most secret mysteries of her organization, if she is incited to such investigations by that greatest of all earthly objects—the preservation of health.

THE BREASTS.—The breasts, or *mammary glands*, are appendages to the generative system in woman. These glands are composed of lobes which secrete the milk, and this milk is conveyed to the nipple by the milk tubes, where it is discharged. These glands exist in a rudimentary state in men, and there are cases on record where they have been so developed and excited by suckling as to enable fathers to perform the part of *mothers* to infants!

The Internal Organs of Generation.

THE VAGINA.—This is the canal leading from the external parts to the womb. Through this canal pass the child in labor, the monthly discharge, &c. It is four or five inches long, and about an inch in diameter. It is composed of an erectile, contractile tissue lined by a delicate mucous membrane, and this membrane has a number of transverse folds so that the vagina may be greatly dilated. The vagina is attached above to the neck of the womb, encircling it completely like the mouth of a sack. *Behind*, the vagina is connected with the rectum, or straight

gut, by a *septum*, or fold of web-like tissue. *Before*, it is connected to the bladder in the same way. *Below*, the vagina opens between the lips of the external parts already described.

THE WOMB.—The womb is that highly important organ occupying the upper part of the pelvic cavity, and situated between the bladder in front, and the straight gut behind. In shape it resembles a pear with the small end downward. The womb is divided into the *body*, the *neck*, and the *mouth*. The body constitutes the upper and larger portion. The neck is that contracted portion of the womb that projects into the vagina; and the opening from this neck into the vagina is called the *mouth* of the womb. The walls of the womb consist of muscles lined by a mucous membrane and covered by the *peritoneum*, before described. The dimensions of the womb are not on an average greater than three inches long, by about two inches wide, even in women who have borne several children. The *broad ligaments* are formed by folds of the peritoneum spreading out from the sides of the womb.

THE OVARIES.—The ovaries, or female seed-glands, are situated in the upper part of the broad ligaments near the upper angles of the womb. These glands are about the size of a large bean or an almond. They are composed principally of little vesicles or *egg-bags*.

THE FALLOPIAN TUBES.—These tubes extend from the upper part of the womb to the ovaries, and their office is to convey the little seeds or eggs from the ovaries or egg-bags into the womb.

THE BLADDER, &C.—The bladder and *rectum*, or

straight gut, are not part of the sexual apparatus, but they are so closely connected with the latter that it is necessary to describe all together. The bladder is situated behind the pubic or cross-bone, and in front of the womb, so that it is liable to be compressed and misplaced by changes in the size and situation of the womb. This fact accounts for many of the symptoms and diseases of women that could not be at all understood without knowing it. Most cases of what are called "gravel" are nothing more than irritation of the bladder and urethra, caused by pressure of the womb. The canal leading from the bladder is called the *urethra*, and it opens externally just below the cross-bone.

THE RECTUM.—The *rectum*, the large gut, or the straight gut, lies behind the womb and the *vagina;* and, like the bladder, it is subject to compression when the womb is distended from pregnancy or any other cause.

CHAPTER IV.

OFFICES OF THE SEXUAL ORGANS, OR THE MANNER OF PROPAGATING LIFE.

THESE THINGS SHOULD BE KNOWN TO ALL—TO MAIDENS AND MOTHERS ALIKE. IT CANNOT BE THAT GOD HAS SO ORDERED IT THAT KNOWLEDGE SO ESSENTIAL TO THE WELL-BEING OF WOMAN CAN BE DESTRUCTIVE TO MORAL PURITY.

THE "COURSES"—THE MARRIAGEABLE AGE.—The age of *puberty*, or the marriageable age, is marked in girls by changes, mental, moral, and physical, that are well calculated to arrest attention, and to excite the most lively interest. These changes are thus beautifully described by Velpeau, a distinguished French medical writer:—"Puberty, or the marriageable age, is announced in girls, as in boys, by numerous changes. The general organization, which, until that period, had progressed alike in both beings, seems suddenly to take an opposite direction in each. The young girl becomes more timid and reserved; her form becomes more rounded, her voice alters, but to take on a softer and more harmonious tone; her bosom is developed. . . . . Her eyes, which are at once brilliant and languishing, express commingled desires, fears, and tenderness; the sensations she experiences, and the sense of her own weakness, are the causes why she no longer dares to approach the companions of her childhood but with a downcast look. On the other hand, the gentle modesty that animates her countenance, and the seductive graces of her demeanor,

soon disclose a power whose existence she never suspected, and which renders it true to say that the marriageable age in the softer sex is the springtide of nature, and the season of the pleasures; but a new function, the catamenial ('courses'), the absolute compass of good or bad health in women, is established with more or less difficulty in the midst of this great revolution," &c. And thus are all traits of resemblance between the two sexes effaced. "The bud newly expanded blossoms amongst the flowers, and this brilliant metamorphosis is signalized by the rosy tints of the cheeks and lips, and the perfect development which discloses the arrival of the age of puberty." And continues Colombat, another French writer,—"The young girl who, until now, was an equivocal non-sexual creature, becomes a woman in her countenance and in all the parts of her body; in the elegance of her stature, and beauty of her form, the delicacy of her features; in her constitution, in the sonorous and melodious tones of her voice, in her sensibility and affections; in her character, her inclinations, her tastes, her habits, and even in her maladies." The same writer thus beautifully paints the moral changes of this attractive period of life:—"The young girl becomes more tender-hearted, more sensitive, more compassionate, and appears to attach herself to everything about her. The new sensations arising within her soul make her timid in approaching the companions of her childhood; a strange trouble, a sort of restlessness, an agitation before unknown, are the heralds of a power whose existence she does not even suspect."

Time for the "Courses."—The time of life at

which menstruation, or the monthly discharge, occurs, varies according to circumstances. The most influential agents in retarding or hastening the discharge are climate and habits of life. In warm climates the courses come on as early as from eight to twelve years; in more temperate regions they may be expected at from twelve to sixteen; and as late as from fifteen to twenty in cold countries. In this country, the average might be placed at fifteen in the Southern States, and a little later at the North. A country life and occupations, simple manners, and frugal fare, tend to retard the appearance of the courses. On the contrary, an easy life of self-indulgence, stimulating food and drinks, attendance on balls and theatres, lascivious books and pictures, *children's parties*, and the whole hot-bed system of city life, all stimulate the sexual organs into precocious activity, which is followed by a premature old age—"'Neath whose withering touch the lines of beauty fade away."

Duration of Menstrual Life.—Menstrual life, or the time from the first appearance to the final cessation of the courses, is about thirty years: placing their appearance at fifteen, they would disappear finally at about forty-five—when they begin early, they cease earlier, &c. This discharge is peculiar to women, and it comes from the mucous membrane lining the womb. The *exciting cause* is to be found in the ovaries or egg-bags. As a general rule, the courses are suspended by pregnancy and suckling.

What the Monthly Discharge indicates.—Early Marriages.—It is an undoubted truth that the appearance of this discharge indicates the fitness of

woman to perform her maternal obligations to the human race. Yet, this is a guide as to the propriety of assuming the grave responsibilities of the married relation, only when Nature is left free to do her own work. The bearing of children is one of the most exhausting processes to which a woman can possibly be subjected; for her very life's blood has to go to support the new being within her, and she has to furnish the materials for all the complex structures of bones, muscles, brain, and every part of the child. How many have been convinced of the truth of the above position by sad experience! How many women are there, who are wrinkled, worn-out, superannuated, diseased, and completely broken down, when they should be in the very prime of full-blown, exuberant womanhood! And all because, under the hot-bed influences to which we have adverted, the sexual organs have been prematurely developed, the courses have made their appearance too early, and a *child* has been led to the marriage bed! We say a child emphatically, for though the evidences of womanhood are present, many of these forced growths are as little capacitated in mind and body to become mothers, as children are. Even when the evidences of womanhood are not hastened by any artificial influences, young women should not marry until their whole organization, mental and physical, is fully developed and consolidated—until every part is *perfect*, wanting not an *atom*, with an *overflowing* vitality seeking an outlet. If women would so live, and so *wait*, as to attain to this state of glorious maturity, before they take the marriage vow; and if they would follow the laws of health afterwards,

it is beyond the power of language to express the blessings that would ensue to mothers, to children, and to the whole human family!

LENGTH, &C., OF EACH MENSTRUAL PERIOD.—The duration of each menstrual period, and the quantity of fluid discharged, vary greatly in different women; so that we may say, each is a law unto herself in these particulars. Therefore, every woman must form her estimate of the healthy nature of her "monthly periods," not so much by the number of days that she may menstruate, or by the actual quantity discharged, as by a comparison with her general habits in these respects, and by the effects on her system.

INFLUENCE OF THE MOON, &C.—Women are regulated about every lunar month, or at intervals of 28 days; but there is no foundation for the notion that the moon has any control over this thing; for women are menstruating every day in the year, which of course precludes the idea of lunar influence. There are many other absurdities afloat in the world in reference to this interesting function, but we cannot stop to notice them. Suffice it to say, that it is a natural process, designed to fit a woman for the great duty which she owes to mankind, and that she is not poisonous or dangerous, either to persons or things, because she happens to be "after the manner of women."

HEALTHY DISCHARGE NOT PAINFUL.—The monthly discharge is a secretion from the lining membrane of the womb, and in its natural condition it does not come away in clots. A coagulated or clotted discharge indicates disease. Pain is equally an evidence of an unnatural or diseased state, for perfectly healthy men-

struation is entirely painless. Healthy menstruation is of a dirty, coffee color, destitute of any very disagreeable smell, does not clot, and is unattended with pain. How few healthy menstruations in the present day!

GIRLS SHOULD KNOW THESE THINGS.—Finally, in concluding this subject, we would insist on the importance of having young girls informed as to the nature of menstruation, the time of its appearance, &c., &c. In the absence of such knowledge, attempts have been made to check it by the use of cold water and other dangerous means. And without a knowledge of the nature and uses of this function, some of the most vitally important truths of Hygiene must be suppressed. The fact is, there is too much fastidiousness and false delicacy in this age of the world, which should be banished, and young girls, as soon as they reach the proper age, should be instructed fully in everything pertaining to the preservation of that greatest and most desirable of all earthly blessings—health. Away then with that false modesty, those unfounded fears, and that fatal reserve, which are a wicked imputation on the wisdom of the great Creator! For to say that a knowledge of her organization is calculated to stain the purity of woman, is to assume that God has made knowledge absolutely essential to her well-being, which is injurious and destructive in its tendency! A conclusion contrary to reason and common sense, and insulting to the character of Him "who doeth all things well." No, there is nothing corrupting or demoralizing to woman in the study of herself: she may investigate the most secret mysteries of her physical nature, and still be

———"Chaste as the icicle
That's curdled by the frost of purest snow,
And hangs on Dian's temple."

Secret Bad Habits.

A good deal has been written on this subject of late years, and even women have thought the evil of sufficient magnitude to justify them in sounding a note of warning. But we can but believe that the extent of this evil is greatly exaggerated. Girls who have been properly reared, are not likely to indulge in any improper handling of their sexual organs, unless they are the subjects of some disease, or unnatural excitement of those parts. This kind of excitement is doubtless often due to the presence of worms, to some uterine affection, or neglect of cleanliness. In the first two cases a physician should be consulted. In the last, the remedy is obvious. Still, mothers should be careful to guard their daughters against improper influences, and associates that would be likely to lead them into a habit which will result in injury to the health and morals, if indulged.

Let mothers, then, teach their daughters purity of thought and action, and then, except in cases of disease, there will be but little danger of unchaste feelings or practices.

Reproduction.

The Germ or Seed.—Reproduction is a generic term, implying that power peculiar to plants and animals, of reproducing a being similar to themselves.

The first part performed by woman in this great process is to furnish the germ of the new being, or the little egg from which it springs. This germ or egg is supplied by the ovaries or egg-bags. At each menstrual period, one or more of these germs or eggs pass from the ovaries along the fallopian tubes into the womb. Should this germ come in contact with a vitalizing element, *conception* takes place, and the growth of the new being then begins. Should no contact of the kind alluded to occur, the germ is thrown off from the womb, and there is an end of the matter.

When Conception is most likely to occur.—It is generally admitted among physiologists that menstruation with its attendant process of *laying*, or passing a germ into the womb, causes an aptitude for conception, and consequently that this is more likely to occur *during the menstrual excitement*, and a *few days after*, than at any other time. This fact may be made of great practical importance, where from ill health or other causes, it may be desirable to regulate the number of offspring. And we will take this occasion to add that many circumstances would not only justify the use of our physiological knowledge, for the purpose alluded to, but that the neglect to avail ourselves of such knowledge, would, in some cases, be an act of cruel injustice to some of the fairest, the best, and often, the most afflicted of our race. Who will say that it is criminal to save a wife from disease, and threatened death, consequent on excessive child-bearing by *restraint?* Who will say that it is *not* a *crime*, to subject a wife to such evils, by following the impulses of passion regardless of consequences?

CHAPTER V.

LIMITATION OF OFFSPRING.

We have just stated, that many circumstances not only justify, but demand the use of our physiological knowledge, in limiting the number of offspring. One of these, ill health from excessive child-bearing, has been mentioned. And the remedy—restraint on the part of the husband, about the time of the wife's menstruation—has also been alluded to. But it would hardly be just to those for whose benefit we write, thus to dismiss one of the most interesting and important subjects in sociology and morals, and one more intimately connected with the happiness of wedded life than any other.

One of the most frequent causes of ill health among married women, is over production, or bearing too many children. This declaration is sustained by the testimony of numerous medical writers, and is demonstrated in the daily practice of almost every physician. The evils of excessive child-bearing are also manifest in the offspring of mothers thus enfeebled and diseased. The children of such mothers are often puny, sickly, rickety, short-lived, and not unfrequently idiotic. Again, there are many women incapacitated for bearing children, from malformations, or some serious organic disease, which would render parturition almost inevitably fatal; or subject these unfortunate women

to tortures even more intolerable than death itself. In such cases as these, no one will deny that the prevention of conception by all proper means, and especially by self restraint on the part of the husband at the time indicated at which conception is most likely to occur, is not only justifiable, but in the highest degree obligatory.

The same thing is true where one or both parents are known to be the subjects of some hereditary disease, and when medical science, and especially the sad results of previous pregnancies, as manifested in diseased children, plainly indicate that all the offspring will be greatly exposed to the blighting taint transmitted by the parents.

Other reasons for the limitation of offspring, such as crime, poverty, or inability to provide for, and educate a number of children, might be mentioned. But considerations of this kind belong more to the political economist and the moralist than to the physician, and would, therefore, not be very appropriate in a work of this kind. And while it is highly desirable to make our knowledge of the means of limiting offspring available in many cases, it must be admitted that this power, like all other good things, is liable to abuse, and that the discussion of such subjects involves many difficult problems in sociology. As to the moral aspects of the question, which are, perhaps, regarded by many as the most grave, we must say, that in our view, the prejudices of the many good men and women who oppose the promulgation and exercise of such knowledge, originate partly in a want of discrimination between

things bearing some resemblance, but yet very different, and partly in mistaken religious views.

Some cannot or will not make the distinction between the procurement of abortion and the prevention of conception—between the destruction of the life of a living being, for the accomplishment of unjustifiable and criminal ends, and the refusal to impart life for the purpose of avoiding the disease or death which would be entailed on a child born of diseased parents; or which would hurry to the grave a mother incapable of bearing children on account of some physical disability.

Yet a moment's reflection should convince any one that there is a vast difference between the two. For, in one case, we have the crime of *murder*, unless the sacrifice of the child is necessary for the salvation of the mother, and is so decreed by competent medical authority. In the other case, we have the simple prevention of conception, or failure to impart life, when such means are necessary to the welfare and even the life of the mother.

And yet many worthy physicians and pious clergymen will not listen to argument or reason on this subject, but confounding criminal abortion with innocent and justifiable prevention, denounce any and every effort to limit the number of offspring as a high crime against God and society.

This opposition arises from want of due discrimination, as we have said; and this indiscriminate condemnation has its origin partly from fears of the probable abuse of such power, and partly from what we conceive to be an erroneous application of some passa-

ges of the Bible. As to the abuse of the power, we have only to say, that all good things are liable to perversion and abuse; and that the abuse of a thing is no argument against its proper use. "The greater the blessings which naturally result from a thing, the more pernicious are its effects when diverted from its proper use. Even the benign religion of the Prince of Peace, has been made the unwilling instrument of the greatest calamities ever experienced by man." Yet, no one will pretend to say, that the religion of Christ should be banished from the earth, because it has thus been perverted from its heavenly mission of "peace on earth and good will to men."

As to the Bible, it is true that it denounces murder; but the prevention of conception, so far from sacrificing life, may often be the means of saving the life of mothers—a life which is always regarded as more valuable than that of an unborn child, which is unhesitatingly destroyed whenever such a step is decided to be necessary to save the life of the mother.

The Bible also contains a command, or what is so regarded, to Noah, after the flood, to "multiply and replenish the earth." But certainly, it is a very broad interpretation of a command made to a single individual of a depopulated world, to apply that command to the whole race of mankind for all time, and under all circumstances. The propagation of the species is evidently the design of the great Creator, as is manifest from the feelings and capacities with which he has endowed his creatures. And no command was necessary for the accomplishment of

this design, which was secured in the very constitution of our nature, and which will always be executed without any positive precept. But the sexual feeling, like all other natural passions and propensities, must be directed and controlled by right reason, sound judgment, and reasonable self restraint. And to make the declaration of God to an individual—a declaration which should be regarded in the light of a blessing rather than a command, a universal and inflexible law, a bar to the right use of knowledge—a license for unrestrained indulgence, and a source of infinite suffering, disease and death to the human family, is dishonoring to a wise and good Creator, and a reproach to those who thus misconstrue and misapply the teachings of the Bible.

And let us remind our teachers of morals, that a strong appeal has been made for the prevention of conception, "for the sake of morality itself." Says Dr. Napheys: "The detestable crime of *abortion* is appallingly rife in our day; it is abroad in our land to an extent which would have shocked the dissolute women of Pagan Rome. Testimony from all quarters, especially from New England, has accumulated within the past few years, to sap our faith in the morality and religion of American women. This wholesale, fashionable murder, how are we to stop it? Hundreds of vile men and women in our large cities subsist by this slaughter of the innocents, and flaunt their ill-gotten gains—the price of blood—in our public thoroughfares. Their advertisements are seen in the newspapers; their soul-and-body destroying means are hawked in every town. With such

temptation strewn in her path, what will the woman threatened with an excessive family do? Will she not yield to evil, and sear her conscience with the repetition of her wickedness? Alas! daily experience in the heart of a great city discloses to us only too frequently the fatal curse of such a course."

In view of this state of things, and the inevitable injuries of excessive child-bearing, to which we have alluded, some of the most distinguished authorities have made such declarations as these, which are copied from the author just quoted: "Little improvement," says John Stuart Mill, "can be expected in morality, until the producing of too large families is regarded with the same feeling as drunkenness, or any other physical excess." Says Sismondi, the learned historian of Southern Europe, "when dangerous prejudices have not become accredited; when our true duties towards those to whom we give life are not obscured in the name of a sacred authority, no married man will have more children than he can bring up properly."

"The avoidance of offspring, to a certain extent, is not only legitimate, but should be recommended as a measure of public good," is the declaration of Dr. Raciborski, a French physician. Another physician, Dr. Reich, in view of the evils to society and individuals, from too rapid increase in families, says, "Very much, indeed, is it to be wished, that the function of reproduction be placed under the dominion of the will."

Other authorities to the same effect might be given, as quoted by Dr. Napheys, but we prefer in-

troducing the following sensible remarks from his own pen: "It is absurd for physicians or theologians to insist, that it is either the physical or moral duty of the female to have as many children as she can possibly have. It is time that such injurious prejudice was discarded, and the truth recognized, that while marriage looks to offspring as its natural sequence, there should be inculcated such a thing as marital continence, and that excess here as elsewhere is repugnant to morality, and is visited by the laws of physiology with certain and severe punishment on parent and child." "But," continues this writer, "a thousand voices reach us from suffering women in all parts of our land, that this will not suffice; that men refuse to restrain themselves; that it leads to a loss of domestic happiness, and to illegal amours, or, that it is injurious physically and mentally; that, in short, such advice is useless, because impracticable."

This is, we fear, too true, however humiliating to man the admission may be. Besides this, as the time for the passage and final escape of the vesicle or little egg from the woman is not fixed, restraint for a certain specified time is not a certain preventive of conception. Yet, we may safely say, that those who deny themselves for four days before menstruation, and twelve days after, may rely pretty confidently on exemption from the evils of excessive child-bearing.

Nursing or suckling is another bar to pregnancy, as conception is not likely to occur during lactation, and while the menstrual function is suspended.

This is a good reason, among many others, why mothers should nurse their own children. Still it must not be carried too far with this view, as is too often done. For such a course may be more injurious to the mother than the bearing of children at proper intervals. And after all, the means can be effective only for a limited period, and cannot be relied on implicitly.

In view then of the necessity for limiting the number of offspring in many cases, and in consideration of the difficulties and uncertainties of accomplishing this end, as suggested above, it would seem to be highly desirable that some other means should be instituted. Such are known to some, and are regarded as safe and effectual; but this knowledge should be communicated only in special cases, where there is good reason to believe that it will be properly used. We must caution our readers, however, against the use of injections, straining or bearing down motions, and such like devices for the accomplishment of this end. These are both uncertain and dangerous.

Hints to Wives Desiring Children.

Having said this much in favor of the limitation of offspring in certain cases, a few words will be proper for the benefit of wives who desire to become mothers.

The ancients had some rather fanciful notions as to the material of the nuptial bed, and in this they have been followed by some modern writers. Cer-

tainly mattresses should be used by all in preference to feather beds, for the sake of health. But we have no idea that the kind of bed has anything to do with conception, or that "hemlock boughs make a bed which has a well-established reputation" for increasing fruitfulness. Or that "sleeping on sponge is of service to those who desire to increase their families." Or that "the odor of cone-bearing trees has a well-known influence upon the fruitfulness of wedlock," as Dr. Napheys teaches. But there are some things really worthy of attention on the part of those desiring offspring. STRONG FEELING is not necessary to conception; still it is reasonable to suppose that it is more likely to occur when both parties actively participate in the act of generation. Therefore, the state of mind and feeling should not be overlooked.

Unions after prolonged abstinence are also supposed to be more fruitful, and to give rise to a more vigorous offspring.

The writer just quoted, and perhaps others, attach considerable importance to the SEASONS as an element of fruitfulness in the animal as well as vegetable world. But it is far from being an established fact that there is but one season—spring—for generation. While the seasons may have something to do with the act, fruitfulness in the animal creation depends much more on the habits of life, and the condition of the individual, than on the season of the year.

It has been seen that conception is more likely to occur near the time of menstruation, and, of course, this will be remembered by those desiring offspring.

Exciting the breasts by the application of a child,

or by the use of warm applications, is also recommended on account of the close sympathy between the breasts and the womb. The two extremes of apathy and excessive excitement should be guarded against by those who would have children. The latter is sometimes a difficulty with young married couples, but time will generally overcome it.

Repose, rest on the bed and quietude should be taken after matrimonial enjoyments, when it is desirable that they should be fruitful. But there are cases of STERILITY, or barrenness, where these simple measures will not succeed. These are almost always the result of some uterine disease, or constitutional condition, which can be remedied only by a course of long-continued and very skilful treatment; and, therefore, their consideration would not be appropriate in a work of this kind. One of the most frequent causes of sterility is painful menstruation, or dysmenorrhœa, which see.

Beauty, Sex, Twins, Etc.

On these points we have but little to say, be cause all that is really useful can be said in a few words; and because more would only minister to an idle and prurient curiosity.

As to BEAUTIFUL CHILDREN, the best and only way to have them is to make a judicious marriage between healthy, well-developed persons, and then to obey the general and special laws of health afterwards. Mothers should pay special attention to the rules given in this work for there government before conception, and during gestation and suckling.

As to SEX, a M. Thury thinks that he has discovered that girls are begotten soon after menstruation, and boys at a later period. But this is by no means well established; and if true, would be rather a dangerous kind of knowledge; for most women want boys; and if the girls were left out, the world would get along rather badly. Indeed, it would hardly go at all.

As to TWINS, all that is necessary for their production is for two germs to become impregnated at once. But this knowledge is of no practical use either for the multiplication or the limitation of offspring. And the same remarks apply to other cases, when more than two children are conceived. It is idle then to discuss such subjects, for the reasons given.

Marriage.—Trials and Dangers of Young Wives.

It can hardly be expected or desired that the first conjugal enjoyments should result in conception. Yet, a few words as to the difficulties and dangers of young wives, may be noticed under this head.

Though there is nothing more culpable in the lawful indulgence of the heaven-ordained sexual instinct than in the proper gratification of hunger, or any other natural appetite, yet the trials of a pure-minded maiden, who has always been taught to regard all such things with aversion and disgust, are certainly sufficiently great to merit some words of sympathy, of warning, and of encouragement, on her initiation into the new world of married life.

This is a time when she greatly needs sympathy, quietude, and even seclusion; where she can com-

mune alone with the object of her affections, and quiet the tumult of her feelings in the undisturbed enjoyment of that tender solicitude, those gentle caresses, and that kind consideration, which every *true* man will bestow on a yielding, shrinking, loving young wife, desiring to comply with his wishes, and yet tremblingly fearful of the dangers and exposures which she must incur. But while this sympathy, tenderness and seclusion, are essential to her mental and physical well-being, the young wife's health and happiness are greatly jeopardized from two causes.

Custom requires that the young bride should take a WEDDING TOUR, in which she is subjected to all the excitements, inconveniences, and restraints of travel, and the annoyances of public observation. It is the custom in some circles for a bride to conceal herself from the public gaze for some weeks before marriage. But it would be much more in accordance with the dictates of hygiene, propriety, and natural instinct, for a woman to exclude herself from society the month after, instead of the month before marriage.

It has been said that wives are unwilling to deny themselves the bridal tour; and that some of them would prefer becoming old maids, rather than submit to such denial.

But we regard this as a slander on the sex. For the refined sensitive nature of woman causes her to shrink instinctively from the vulgar gaze at such a time. And when a true woman follows a custom "more honored in the breach than the observance," she does it in opposition to the dictates of nature,

and the promptings of her own refined feelings, in compliance with a social requisition which she feels is a heavy and unreasonable demand on her maidenly modesty, and her bodily strength.

Another great evil to which YOUNG WIVES are exposed, is the inordinate exactions of ignorant or unthinking men, more under the influence of impetuous passion than of prudence and becoming self-restraint.

We have said that all true men will treat a young wife with the tenderest sympathy and consideration; but alas! we blush to say it, there are men who are either forgetful or ignorant of their duty, under the circumstances. The excessive demands of such men as these, act injuriously on both the mental and physical constitution of woman. And this is the cause of that, to her, unaccountable estrangement of feeling which often comes over her, even in the "honey-moon," and which is sometimes the beginning of a permanent coldness and estrangement.

She, confiding innocent one, dreamed only of pure Platonic love, when she awakes to the terrible realization that she is united to one who is far more under the influence of animal passion than of spiritual love. And thus is the foundation of wedded misery often laid in the first few months after marriage, by over-indulgence, or rather unreasonable exactions on the part of the husband. And should conception occur, there will still be another cause of aversion superadded, which is perfectly natural, but which is often misunderstood. This aversion is an ordinary result of conception—is a natural phenomenon, and

no evidence of a permanent change of feeling; but often the first symptom of fruitful intercourse. But the evils of excess stop not here. For the excessive nervous excitement to which the young wife is exposed from this cause, and from the wedding tour to which we have alluded, are frequent causes of those chronic diseases so common among women. Thus is excessive indulgence soon after marriage, often the cause of estrangement of feeling and permanent ill health; two of the greatest evils that could possibly befall a wedded pair. This is our excuse for calling attention to the delicate subjects discussed in this article.

Now a word of encouragement to yielding, loving, suffering, and often abused women.

Young wives are not only shocked, but many of them are even terrified at the thought of the first conjugal approaches, regarding the consummation of marriage as a painful and bloody rite. But with proper prudence and care, there is no danger of this kind, and all such fears should be dismissed. Should any serious obstacle exist, it will indicate some malformation requiring the attention of a physician.

To conclude, then, the dangers in the first months of married life are from over-indulgence, and from excessive nervous excitement, laying the foundation for chronic disease in the future; and not from local injury, giving rise to immediate pain.

Besides the consummation of marriage, which is really a physical act, we might here dwell in glowing terms on the very popular themes of love, courtship, engagements, choosing a husband, etc., etc.

But while these things are intimately connected with the welfare and happiness of woman, they come more properly under the head of general hygiene, and especially under the head of mental and moral hygiene, where they are, perhaps, sufficiently discussed in such a work as this, which is intended to impart only useful information, and not to attract by captivating headings to useless or irrelevant matter.

For some other subjects of interest, see notes at the end of the volume.

PART SECOND.

PRESERVATION OF HEALTH, OR THE MEANS OF PROLONGING LIFE.

"NOR LOVE NOR HONOR, WEALTH NOR POWER,
CAN GIVE THE HEART A CHEERFUL HOUR,
WHEN HEALTH IS LOST. BE TIMELY WISE;
WITH HEALTH ALL TASTE OF PLEASURE FLIES."

CHAPTER I.

VARIOUS MATTERS.

HEALTH NEGLECTED—PROVIDENCE SLANDERED.—Every one will admit the truth of the preceding quotation, without the least hesitation; and all will subscribe as readily to that trite maxim—"an ounce of prevention is worth a pound of cure." Yet notwithstanding these admissions it is lamentably true, that the greater part of mankind are either ignorant of the laws of health, or practically regardless of them when known. There are thousands of our race, who never thought or read a moment in their lives, on the laws that govern their being, or the means of preserving their health. Others there are, who devote some attention to this all-important subject, but their ideas are derived from newspaper advertisements, and catch-penny books, and they are very naturally led to the conclusion that the whole secret of health consists in swallowing some nostrum or specific for the *cure* of disease. These people never think of the *causes* or *prevention* of disease; or if they do, they rest satisfied in the belief that all our maladies are unavoidable inflictions of Heaven; "mysterious dispensations of Providence" which must be borne with pious resignation. And these misguided slanderers of Providence, who, under the guise of

piety, charge God with evils that are the natural consequences of their own wrong-doings, are to be found not only among the ignorant and partially enlightened, but among those of whom we might expect better things—even among professional men, and literary men and women—among physicians, clergymen, editors, and grave professors.

Our Belief—The Laws of Health.—We would guard against the inference that we do not believe in the agency of a superintending and directing Power: for this we do most devoutly believe. But we are equally firm in the conviction that God has instituted physiological, as well as moral laws for our government; that obedience to those laws is absolutely essential to health and life, and that, *as certainly* as a breach of the moral law is punished in the life to come, *just so certainly* will violations of the laws of health be visited with the penalty in this life.

Blind Leaders—Patent Medicine Certificates.—The want of correct knowledge on medical subjects in general, and the preservation of health in particular, is almost universal. Our literary characters are generally less informed on medical matters than on any others. We will not say that they are grossly ignorant—that they know nothing; but the cause of truth requires us to say, that they are very often deceived and misinformed, and that those who commit themselves to their guidance, in medical affairs, on account of their literary reputation, are very likely to be led into the most fatal delusions. In confirmation of this, it is only necessary to notice how readily these men of letters give in to the absurdities of medical impostors,

and how easy it is for these harpies that prey on the public health, to obtain any number of "certificates" from clergymen, professors in literary institutions, &c., to the *wonderful* virtues of blood-purifiers and other health-destroying nostrums.

A GREAT DIFFICULTY.—KNOWLEDGE INCREASING.—Besides actual ignorance on the subject of hygiene, a very great difficulty consists in an *indisposition* on the part of the people to conform to the laws of health—to *practice* what they know. Many can truly say,—

> "I see the right, and I approve it too,
> Condemn the wrong, and yet the wrong pursue."

There is, however, a growing interest on this subject; the masses are beginning to awake to the important truth that the *preservation of health* should be among the *first great objects of life.*—Sound medical knowledge is beginning to be diffused through the *popular channels of communication;* we have a few respectable journals for the people, devoted mostly to Hygiene; and some widely circulated newspapers and magazines* have adopted a "Health Department," to the exclusion of the indecent and delusive patent-medicine advertisements that still disgrace the columns of so many of our papers. Besides this, a knowledge of the elements of Anatomy, Physiology, and Hygiene is beginning to be considered a necessary part of a common school and collegiate education.

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* To Louis A. Godey, the enterprising publisher of the "Lady's Book," belongs the honor, we think, of being first to establish an *original* "Health Department." We trust that his example will be followed by all of our leading papers and magazines.

Willful Violation.—A Fatal Delusion.—How many are there who *knowingly* and *willfully* violate the laws of health, thus sinning, we might say, against their bodies with malice *aforethought!* They indulge in some forbidden pleasure or injurious appetite, knowing that sickness will be the consequence, under the delusive idea that they have but to take medicine, or send for a physician, and all will be right again. But how often are they fatally deceived! True, medicine may, for the time, relieve the effects of gluttony or debauchery, but the frequent use of drugs will disorder the functions of the body, and incurable disease will inevitably result from persistence in habits that render a frequent resort to such agents necessary. And again, medical science is uncertain at best, and the most approved remedies, when administered by the most skillful physician, too often fail, when disease has fixed itself on the vitals. But should the disease not prove immediately fatal, a momentary gratification will, in all probability, be followed by days, and weeks, and months, and years of suffering, permanent impairment of health, and premature death.

Fruits of Obedience—Disease banished.—Such are the consequences of a disregard of the laws of health: let us now consider the fruits of obedience. It is true that we are exposed to dangers and accidents which are, to some extent, unavoidable, yet, while one falls in this way, hundreds of thousands are daily and hourly hurried to the grave through disregard of the plain precepts of Hygiene. Indeed it is our honest conviction that ninety-nine hundredths of the diseases that devastate the world and crowd our graveyards,

could be prevented by attention to the plain and easily understood laws of health. Yes, we believe this and more: we believe that *full* and *perfect* obedience to the laws of our being, would banish disease and deformity from the world, and finally restore our fallen race to the pristine beauty and perfection of our first parents when they emerged from the plastic hands of the great Creator. This may be considered extravagant by many, but it *must* be so, unless the work of the great Architect is imperfect—unless disease is the *natural* condition of mankind, and not the result of a violation of physical laws that are fixed and immutable in their nature and consequences. Such, and *so great*, are the blessings offered by Hygeia* to those who make their offerings at her shrine—to those who, returning from their wanderings, perform their vows of obedience.

Woman's Sufferings.—And surely woman will be the first of these returning votaries; for, since the first act of disobedience—since she first partook of that forbidden fruit—"Whose mortal taste brought death into the world and all our woe," her lot has been a peculiarly hard one. From her weakness and dependence, from the nature of her physical organization, and the special duties imposed on her as a mother, she has been exposed, in an eminent degree, to all the evils arising from a violation of the laws of health; and, at the same time, she has suffered much from the ignorance and malpractice of those on whom she has been dependent for medical advice. But we

* Goddess of Health.

cannot believe that the pain and disease that she has endured are entirely the result of the circumstances by which she is surrounded; and we are still further from believing that all her sufferings are a *direct curse* inflicted on her for her moral guilt. For while sin or moral guilt is the prime source of all the evils of life, disease does not flow *directly* from this source, but is the *immediate* and *necessary consequence* of violations of physiological laws instituted for our government. The reward of obedience to those laws is health and happiness—the natural consequences of disobedience are disease, misery, and death. We are left free to act—to choose for ourselves—we can *obey* and *live*, or *disobey* and *die*.

CHAPTER II.

OF AIR.

"MEN CONSUME TOO MUCH FOOD AND TOO LITTLE PURE AIR; THEY TAKE TOO MUCH MEDICINE AND TOO LITTLE EXERCISE. MORE PEOPLE DIE OF AIR-TIGHT ROOMS THAN OF UNCHINKED LOG-CABINS."—*Hall's Jour. Health.*

COMPOSITION OF THE AIR.—Chemically, the air or common atmosphere is composed of oxygen and nitrogen, with a variable, but generally small proportion of carbonic acid gas. Oxygen gas is the agent that supports respiration and combustion. Nitrogen, which constitutes eighty parts in one hundred of the atmospheres, seems to act principally as a diluent; for undiluted oxygen would be too stimulating to the

lungs. Carbon and nitrogen, when unmixed with oxygen, are generally spoken of as poisonous to the lungs, but they cannot be positive poisons when they are inhaled every breath, and the injurious and fatal effects from breathing these gases arise mainly from the *absence* of oxygen; for the flame of life will no more burn without the presence of oxygen than the flame of a candle.

Crowded Rooms.—Oxygen gas being the vital element of the air, and being consumed by combustion, it follows that the air of crowded rooms where there is not a free circulation, and where numbers of lights are burning, will soon become unfit for healthy respiration. And in addition to the drafts made on the air by burning lights, every person consumes from seven to ten cubic feet of air *every minute.* In view of these facts, we cannot be surprised at the deleterious effects that ensue from frequenting, at night, crowded assembly rooms, churches, theatres, and other places of public resort, where, to the health-destroying influences of impure air, are superadded loss of rest and other influences calculated to weaken the vital powers, and invite disease. The air of such places is not only deprived of its vitality: it is vitiated and actually *poisoned* by the exhalations from the skins and lungs of the sweltering multitude. We have already seen that every one throws off a large amount of dead, worn-out matter, which would be highly injurious to the system if retained. It is hardly necessary to say that these matters taken into the system of others, could not be *very conducive to health.*

It should never be forgotten, then, that the most concentrated and deadly impurities to which we can possibly be exposed, are to be encountered in a close room filled with human beings. And places of feasting, dancing, and theatrical entertainment, where ventilation is disregarded, and where precious hours are frittered away in idle and corrupting amusements, are fatal alike to physical and moral well-being, and are often the entrance-chambers to death and hell.

The Air of Cities.—The whole air of cities, and other places where numbers are congregated, is more or less impure, as a necessary consequence of the various foreign elements commingled with it. One of the greatest evils of city life is the crowding of multitudes in garrets, cellars, and other dark, damp, narrow, filthy, and confined habitations. It is enough to make the heart sick to think of the moral and physical deterioration of our fellow-creatures, where the sexes are huddled together without distinction, like cattle, in these pestilential dens. From these centres of infection, issue streams of corruption which poison the atmosphere, and spread contagion and death, moral and physical, through our cities. And these hot-beds of disease are to be found in every street, lane, and alley; while the death-producing emanations from them are commingled with a whole atmosphere loaded with the effluvia from distilleries, cow-stables, hog-pens, soap factories, slaughter-houses, grave-yards, and ten thousand other air-contaminating agencies peculiar to

cities. No wonder then, that "Death rides on every passing breeze," nor wants for victims to feed upon in our populous and dirty cities.

CAN NOTHING BE DONE?—WHAT WOMEN CAN DO. —And can nothing be done to remedy this dreadful state of things? Shall the appeals of philanthropy, of Christianity, of common humanity, and self-preservation, all pass alike unheeded? Surely not. Surely woman, pure, tender-hearted, *loving* woman, will do something to redeem her unfortunate fellow-creatures, and *especially her own sex*, from the thraldom of vice, disease, and death. Surely she will study and practice the laws of health herself, and do all that she can to diffuse hygiene knowledge among the masses, until the majority of the people shall be so far enlightened as to co-operate with our legislators in carrying out a *thorough, radical, home* reform of the evils to which we have adverted. This *can* be done; this MUST be done; this WILL be done; and that mainly through the instrumentality of woman—the greatest, the best of all reformers. Who, but her, has banished profane swearing from good society? Who, but her, has put an end to fashionable tippling? Who *can* do more than she—who HAS done more in every great moral and social reform? And this is a work *peculiarly her own;* it is a work of philanthropy, of loving-kindness—it is a *womanly* work: it involves no contentions about "woman's rights,"—no noisy and unfeminine assemblages—all that is necessary is to *read, practice, and disseminate* the great truths of Hygiene—to visit the poor and the sick—to minister to their

wants, and to teach them that there is a "better way," physically as well as morally—and then, *the work is done!* For if the people could be thus enlightened, the evils of which we now so bitterly complain could not long exist in the United States of America, where all power belongs to the masses.

Capacity of the Lungs.

Effects of Impure Air, &c.—Impure air not only poisons the blood, as we have seen, but it diminishes the breathing capacity; for when the air is loaded with foreign and irritating matters, the air-passages contract spasmodically, so that the necessary quantity of air does not enter the lungs.

Sedentary Habits.—Seamstresses.—Sedentary habits are very unfavorable to full and free expansion of the lungs; and women, from the nature of their occupations, are peculiarly exposed to the dangers arising from this source. But many of the evils now considered unavoidable may be escaped by attention to the following directions, which are specially designed to invigorate the muscles of respiration, and to increase the quanity of air breathed. It is unfortunately true that many women are compelled by stern necessity to spend almost every hour over the needle, or in some occupation scarcely less injurious; but much can be done to alleviate the hard lot, and preserve the health even of these unfortunates, if they can be induced to practice those things that are calculated to counteract the health-destroying influences by which they are surrounded. And it is not too much to hope that the

use of hygienic means, so far as circumstances will permit, together with the change of employment consequent on the more general introduction of sewing-machines, will, ere long, relieve the victims of the needle from the ills under which they have so long groaned.

FASHIONABLE LADIES.—This is a large class that suffers no less from confinement and want of air than the one just alluded to. And we are sorry to add that most of these have nothing to plead in extenuation of their disregard of one of the first great laws of health. Therefore their case is even more hopeless than that of the toiling slaves of necessity; because their condition is voluntary, many of them being *willing self-offered* victims. These fashionable off-shoots of modern society, these "nice" young ladies, consider it vulgar to appear abroad on foot, and they would ride in a carriage to the kitchen, if they ever had occasion to go there; they spend their days in lounging on sofas in parlors, from which the bright sunlight of heaven and the pure air are excluded with as much pertinacity as a poor relation, or one of the "lower class," who does not affect gentility and aristocracy. And can such deluded creatures as these expect to enjoy health? How can they expect anything but contracted chests, crooked spines, round shoulders, consumption, physical and mental imbecility, and an early grave? And alas! with many the delusion, if it may be called a delusion, is wilful. As strange as it may appear, they are not entirely ignorant; many of them are educated, and, though their reading is confined

mostly to the "last new novel," they know something of the laws of health; they know, at any rate, that air was made to breathe, and that the absence of pure fresh air makes them feel very bad. But then they do not want to be stout and hearty! These are marks of plebeianism and rusticity—they are the characteristics of "common people"—"*country* girls" who roam about the fields, and even condescend to engage in the vulgar and "ungenteel" employments of domestic life. All of which is decidedly unbecoming and unfashionable: for it is *fashionable* to be sick. Lilies are preferred to roses—the pale cheek and languishing air are so much more "*interesting*," according to modern notions, than the ruddy complexion, and the free elastic step. Well may we say, in the face of such folly and perversity as this, that these cases are almost hopeless! For we hardly know how to address those who thus wilfully violate the laws of their being—who sin against themselves and their God, and barter the most precious treasure of life for trifles lighter than air! Oh! that the republican women of America would cease all affectation of aristocracy, and especially that kind of aristocracy or gentility, or rather *foolery*, which sneers at useful labor, and considers blooming health an evidence of vulgarity!

Intense Mental Application.—Light Reading.—Intense application of the mind interrupts free breathing, and prevents full expansion of the lungs. Hence writers and literary persons should sedulously use every means calculated to counteract the tendency to contraction of the chest, and consequent diminution

of vitality. And it should be remembered that imperfect respiration is not only the result of abstruse investigations, but also of that species of "light reading" so common among ladies. In this kind of reading the feelings are skillfully wrought up to a high state of excitement by the writer, until the breathing is almost suspended by anxiety, suspense, and other emotions awakened by the thrilling story, in which the mighty passions of love, anger, remorse, revenge, &c., are so vividly depicted as to steal away our consciousness, and make us forget that it is all a dream of fancy.

BAD POSITIONS.—These are often associated with intense mental application, and they are then particularly injurious. Persons who are in the habit of writing or reading, with the body bent forward, are exposed to the combined influence of two causes of deformity and contracted chest, that no constitution can long withstand. These bad positions prevent the full expansion of the lungs by compressing the chest, and interfering with the breathing muscles.

Means of Expanding the Lungs.

TENDS TO PROMOTE HEALTH.—The capacity of the lungs being the measure of vitality; or in other words, the quantity of air, our lungs may be able to contain, being the evidence of our power to resist disease and death, it follows that everything that increases the capacity of the lungs, tends to promote health and long life. These things are therefore worthy of special attention.

DIRECTIONS FOR THE SEDENTARY.—Those who are

necessarily compelled to sit much, should if possible have intervals devoted to exercise; and this exercise should be as prolonged and vigorous, as their bodily strength will allow. And if it be so that they cannot spare any considerable and fixed time for exercise, they should frequently arise from their seats, and bring the muscles of the chest and abdomen into action, by widely extending the arms, by elevating them, by moving them rapidly and forcibly backward and forward; and by throwing the shoulders back, and at the same time inhaling as much air as the lungs can possibly contain, and then "breathing out" slowly. Running up a flight of stairs, at the same time "holding the breath," is a most excellent and available mode of expanding the lungs, recommended by Dr. Hall, in his late work, "Health and Disease." Another mode of expanding the lungs, suggested by the same writer, and one accessible to all, is to "blow up" or fill life-preservers, bladders, &c., by blowing into them. In the absence of any such things the lungs might be very well inflated by drawing in the breath "full and long," and then blowing in the closed hand. The advantage of these modes, is that the lungs are very powerfully distended by the expansion of the air drawn into them, through the agency of heat, in accordance with a principle, with which almost everybody is familiar. This is more particularly true of the running-up-stairs mode, which we consider a most happy idea. The above directions are so easily followed, even by those who "have no time" to attend to their health, that it seems strange that any one should neglect them, when convinced of the vital importance of well-filled and well-developed lungs to

health. Neglect of these simple and accessible measures on the part of the sedentary, arises more from indisposition to exertion, than from want of time and opportunity. In such persons this indisposition is almost insuperable; and nothing can overcome it except a firm ever-present conviction, that health and life are the prizes to be obtained by breaking the fatal spell of indolence. The fact is, where *one* is subjected to unavoidable disease from confinement, there are *hundreds* of *thousands* who ignorantly or wilfully neglect the means of counteracting the evils to which they are exposed from the nature of their occupation.

DIRECTIONS FOR THOSE WHO HAVE MORE LEISURE.—The directions above given are applicable to all, but they are intended more particularly for the sedentary and for the toiling millions who have to labor for their daily bread. Those who have more leisure may exercise the muscles of the chest, arms, and abdomen, and thus increase the breathing capacity, by throwing weights, and by grasping something above the head, and then raising the body by the arms. The latter is a most excellent mode of exercising the breathing muscles, and it should not be rejected because it may look a little unlady-like for a grown woman to be swinging by the arms *child-fashion.* Every one can have a small ladder, or something of the kind, in her room, and, in the absence of anything else, she can hang herself up by grasping the top of the door. These motions should be practiced every morning at least. And those who take but little out-door exercise, and who are so fortunate, or rather unfortunate, as not to be compelled to labor, will find these lung-

expanding and health-promoting exercises much better for them in every way than any "piano practice." In addition to these special means of expanding the chest, every woman who desires health and happiness should take as much out-door exercise as circumstances will permit. We will recur to this under a subsequent head.

WOMEN SHOULD NOT SUBMIT TO RESTRAINTS.—No false notions of gentility and propriety—no unreasonable subserviency to public opinion should deter any woman from engaging in sports or exercises that will increase the size of her lungs, and fill them with an abundance of pure health-giving and life-sustaining air. For, after all, many of the restraints laid on women are absurd, unreasonable, and destructive in their effects on health, and should therefore be disregarded: for what if upper-tendom *does* sneer, and what if moustached, Frenchified dandies *do* call you vulgar! You have a natural and inalienable right "to life, liberty, and the pursuit of happiness;" and the daughters of the heroes of '76 should sternly resist any tampering with their birthright; and especially by a brainless set of fools and simpering jackdaws, who would sacrifice life to a shoe-buckle if Fashion so decreed. Should there be any who have not the courage to stem the tide of fashionable folly, and to seek health at all hazards, we particularly commend to them the special means of developing the breathing muscles which may be used in private. Yet we must be permitted to add that no compromise should be made with error, and that no woman who takes a proper view of things will make any concessions when

the senseless requisitions of Fashion come in conflict with the high and sacred obligations of Health. Better, far better, to be considered unfashionable, and even vulgar, than to spend a few sad days in gilded misery, and then to rot in an early grave!

Change of Air.

No Advantage in Change in itself.—The remarkable benefits that have been witnessed from a change of place in some cases of sickness, have given rise to the prevalent idea that there is something magical and wonderfully curative in the *very change itself*, apart from the concomitants of such change. But as pure air is essentially the same the world over, it is obvious that no change can be beneficial unless it be a change from an impure atmosphere, or one in some way unsuited to the case, to one more suitable by its purity, moisture, dryness, temperature, or something of this kind. Where these conditions of the air are more favorable, a change from a better to a worse air may be beneficial in some cases; yet it should be remembered that the improvement is due to the accidental state of the air and the concomitants of the change, such as traveling, new scenery, &c.: in short, that the invalid improves in *spite* of the bad air. There is no foundation then for the notion that a change is beneficial in any case merely *as a change;* and it is still more absurd to suppose that impure air can be better in itself than pure air. As just intimated, there are many accidental conditions that modify the action of air on the human system; and hence some cases might be benefited by a change from a pure *dry* air to an atmo-

sphere comparatively impure but *moist*. And this is the reason perhaps why the inhabitants of the most airy part of Edinburgh find it beneficial to send their children with hooping-cough to Cowgate street, a street filled with filth and water.

Means of purifying the Air, etc.

PRIVATE ROOMS—FIRES—VENTILATION.—It has been seen that there is a very close connection between our fires and the air of our rooms. In addition to the chemical changes, the air of a room is altered as to its density and moisture by the burning of a fire; and in many cases these conditions are as important as the chemical constitution of the air. Fires are also most important agents of ventilation, by keeping up a current through a room, and by passing off impurities through the chimney; *provided the air can enter the room freely*. Hence every room in which a fire is kept burning should be well supplied with air, so as to make a sufficient current to drive impurities up the chimney.

FIRE-PLACES AND STOVES.—Fire-places are far preferable to stoves for purposes of ventilation. Stoves radiate more heat through a room than fire-places, and are therefore more economical, but they rarify and dry the air more than fire-places, and consequently render it less fit for breathing. The fact is, we look on stoves as among the greatest curses of "modern civilization;" but as they will, in all probability, continue to be used through considerations of comfort and economy, we cannot too strongly insist on the vital importance of having a free ingress

of air when a room is heated by a stove. Moisture should also be provided for:* dry warm air is heating and irritating to the lungs, exciting inflammation, cough, and "bleeding at the lungs," when these organs are predisposed to disease. And even where there is no special predisposition, actual disease may soon be developed by confinement in a close room heated by a stove. The influence of breathing a highly rarified air is not sufficiently appreciated; yet it must be manifest, on a moment's reflection, that a volume of air that is heated and expanded must contain less oxygen or vitality than an equal volume not so expanded. It follows then that air heated by a stove or fire-place, and especially by the former, if the room be close, is to a considerable extent unfit for breathing for want of a sufficiency of the vital element of respiration. Persons whose breathing capacities are diminished from disease, or whose chests are naturally small, on going into a room filled with rarified air are troubled with shortness of breath, a feeling as if the lungs could not be sufficiently filled, an indescribable sense of uneasiness, a faintness, dizziness, &c.

Smoking Lamps, &c.—How to purify the Air.—Smoking lamps and candles not only exhaust the air of its oxygen—they send up volumes of rank offensive gases which poison the atmosphere of a room and render it highly offensive to those not accustomed to such things; and yet, strange as it may appear, many

* By placing a vessel of water on the stove.

become so habituated to this odor that they never perceive it.

The remedy is obvious. Besides the free admission of air, there is a special method of purifying the atmosphere of a room that is very convenient and effectual, and should therefore be generally adopted. This is simply to open all the doors and windows, and then to swing one door violently backward and forward so as to fan out the room. This is a highly useful procedure in cases of sickness.

Sleeping-Rooms.—Special attention should be given to the ventilation of sleeping-rooms, for pure air and an abundance of it are more necessary when we are asleep than when we are awake. Sleeping-rooms should be large, high, and airy. But many stow themselves away at night, in little, low, air-tight pigeon-holes, as if sleep suspended respiration and rendered air unnecessary. No one should ever sleep in a close room with all the doors and windows closed: even in the coldest weather, at least one window should be partly raised so as to admit fresh air, so arranging it as to avoid a draft or current on the sleeper. Sleeping-rooms should not be less than twelve feet square, and they should not be encumbered with any furniture, except what is absolutely necessary. Flowers should not be left in vases, &c., in a sleeping-room. Bed-curtains should be banished from bed-rooms as worse than useless, for if fresh air is admitted into the room, it is more or less excluded from the bed by the curtains, while the sleeper is compelled to breathe over and over again, an air exhausted

of its vitality, and poisoned by the exhalations from the body. So let bed-curtains go the way of baby caps, and be numbered among the things that were.

"Bad Colds."—Night Air.—Persons who will follow the above directions, need not be alarmed about "bad colds;" for the plan prescribed, so far from causing colds, is one of the most effectual preventives: the fact is, more colds are caused by heat than by cold, and where one is injuriously affected by the direct effects of cold, there are hundreds who die from breathing an impure, overheated air, and from the effects of changes for which they are wholly unprepared, on account of their habits. How often is it the case that one, who has been in the habit of sleeping in a close ceiled room, is compelled in traveling or visiting, to spend a night in an open room, perhaps an unchinked log-cabin. And what is the consequence? A bad cold, if nothing worse, which is chargeable to the air-tight room at home, and not to the log-cabin. But, then, that night air, that *horrid* night air! what *shall* we do about that! Shall we allow this death-dealing visitant to roam freely through the sacred retreat where beauty reclines? Shall we suffer the horrid monster to kiss her fair cheek? Yes, we say let him in; for though he has been abused much, and though he does move about under cover of darkness, he was certainly created for some useful purpose; and we are forced to the conclusion that night air was intended for human lungs, from the fact that these lungs continue to play by night as well as by day, while there is

nothing for them to use at night *but night air*. To speak seriously on this subject, nothing has been more prolific in disease and death than those popular errors which attribute all kinds of deadly effects to breathing night air; for while it is admitted that night air may be impregnated with elements of disease in certain marshy districts, it is equally true that it has nothing in itself more unfriendly to the human constitution than day air. And even admitting that night air may be the vehicle of ague and fever, or that it may sometimes be injurious from excessive dampness, or some other accidental condition, yet it cannot possibly be worse than the double concentrated extract of disease and death, generated in a close unventilated sleeping-room. So we say, choose the night air in preference to close confinement, under all circumstances, and thus prepare the system for changes of weather, and for those unavoidable exposures to which all are incident in life. Avoid any unnecessary or rash exposure, but have air *enough*, at *all hazards;* and should you be so unfortunate as to have a touch of the "chills," you have the agreeable satisfaction of knowing that you have chosen the least of evils—that it is far better to have a short spell of a curable and not very dangerous disease, than a life-long train of incurable aches and pains, the end whereof is an early grave.

Late Suppers.—An over-loaded stomach presses up the midriff, thus diminishing the breathing capacity; and consequently the circulation of the blood is disturbed, the brain is over-loaded, giving rise to horrid dreams, nightmare, sleepwalking, &c. There can be

no doubt that many of the "mysterious dispensations of Providence," in which persons go to bed well and are found dead in the morning, might with more justice, be charged to late and heavy suppers, than to God.

CHAPTER III.

OF LIGHT.

EFFECTS OF LIGHT ON PLANTS, &C.—To appreciate the effects of light on organized bodies, it is only necessary to observe those plants that grow up in the shade. Plants thus excluded from the light are colorless, sickly, and brittle. Light has the power of reversing completely the vital and chemical changes of vegetable life, for vegetation absorbs carbon and gives out oxygen in the day, while at night just the reverse is the case. It is not at all unreasonable to suppose that a similar control is exerted over animal life by light. But we are not left to supposition in this matter: the sallow bloodless faces, and the feeble bodies of the denizens of narrow streets and alleys, and dark cellars, demonstrate the analogy between the animal and vegetable kingdoms in their relations to light. The reason why the influence of light over animal life has attracted so little attention is, because its absence has generally been associated with bad air, unwholesome food, filth, and other circumstances which have been considered sufficient in themselves to account for ill health.

HOW IT ACTS ON ANIMAL LIFE—VEILED LADIES—

SHADE TREES.—Light has a powerful influence in decomposing and dissipating poisonous emanations; it also gives color and firmness to the skin, and is doubtless necessary to that full physical development that constitutes a perfect form—one of the greatest beauties of woman. Ladies, then, who keep themselves and their children excluded from the sun-light of heaven—who remain shut up in dark rooms, or who go out hooded and veiled, to prevent the warm and healthful kisses of the sun, violate an important law of health and beauty. It is hardly necessary to say that light should be a prime consideration in the construction of houses, both for convenience and health. Shade trees and shrubbery should not be crowded around the windows so as to intercept the light, for besides obstructing the light they give off hurtful emanations, and particularly at night.

CHAPTER IV.

OF DRINKS.

NATURE'S BEVERAGE.—Water is "nature's own" and only beverage. For milk, though consisting largely of water, is made subservient to the animal economy not as a diluent or vehicle, but as a solid nutriment by means of the butter, caseine, &c., that enter into its composition. Water then is the only drink provided by nature for plants and animals; and as nature is only another name for unerring Wisdom itself, it

follows that water should be the only beverage of persons in *health*.

USES OF WATER TO THE ECONOMY.—Water constitutes much the larger portion of the entire bulk of the human body; it is the vehicle by which all nourishment is conveyed into the blood, and through the blood to every part of the system for its replenishment. Water conveys to the excretory or cleansing organs, all the waste, worn-out, irritating matters; and it is the only thing that can circulate freely and constantly throughout every part of the body without irritation or injury. It, then, is the great solvent, diluent, purifier, sedative, and carrier of animal and vegetable life; it dissolves everything that passes into the system, and everything that passes out, so far as this is necessary; it mingles with all the elements of the body and dilutes them, or tempers them down, so that they may circulate through the most delicate and sensitive parts without the least injury or excitement; it purifies by washing out every part; it soothes by purifying, and by its direct sedative and cooling properties; and finally it conveys as a universal animal solvent. With these facts before us, is it not strange that the question should have ever been discussed as to whether *man is a drinking animal or not?* And is it not still more strange that a few have ably argued the negative, thus making "the worse appear the better reason?"

THE QUANTITY OF WATER REQUIRED.—The quantity of water demanded by the system depends greatly on our habits with regard to diet, exercise, &c. Those who use a concentrated, highly seasoned, or dry diet. or those who take active exercise, will of

course drink more than others under opposite circumstances. Those who eat freely of cooling watery vegetables may find it necessary to drink but little. But after all there is nothing that will produce those direct, cooling, soothing, and satisfying effects which we experience from a draught of pure cold water fresh from the hand of Nature, as she pours it from her crystal founts. As we have just seen, some contend that it is not necessary to drink at all—that sufficient fluid can be supplied to the body by a properly selected diet; there are others who seem to think that the stomach was only designed as a reservoir for water—that it should always be kept filled to its utmost capacity, so as to afford an abundant stream to be poured through the skin, and all the excretory outlets. This extravagant use of water has become quite fashionable under the auspices of Hydropathy, and is the legitimate result of that exclusiveness and one-ideaism which would confine all medical virtue to a single remedy. This abuse of water must be injurious, by over-distending the stomach, and by diluting too much the gastric juice; but no rule as to quantity can be given that would be appropriate for every one. Healthy persons may follow the dictates of nature, and drink according to thirst; but it should be distinctly remembered that stimulating food and drinks, some kinds of mental excitement, and some occupations, create a morbid or unhealthy thirst, which, though it may be a correct guide as to the wants of the system under the circumstances, as plainly indi-

cates that there is something *wrong* in our habits. Therefore it is the part of wisdom, whenever we find that our desire for water is much greater than usual, carefully to review our manner of living, so that we may trace this symptom to its source, and by a timely reformation avoid impending disease.

TIME FOR DRINKING.—As to the time for drinking water, something like a correct general rule may be given. It is injurious to take a large quantity of water or any other fluid while eating, or while digestion is going on. It follows, then, that the best time for drinking is when the stomach is comparatively empty. Hydropaths are great advocates for profuse water-*drenchings* early in the morning; but we can see no advantage from this, unless it be that the stomach is more empty at that time; and it is also probable that the passing off of morbid matters is facilitated. Aside from these considerations, we can see no reason why it would not be just as well to take our principal supply of water about four or five hours after eating. But there are many exceptions to the general rule above given; for there may be cases where, from the dryness of the food, or from the peculiar condition of the stomach, or from the state of the general system, it may be useful to drink pretty freely while eating, or very soon afterwards. So, after all, the best rule is to *try to live right;* to regulate our habits so as to keep all the organs in a healthy condition, and then *follow the dictates of Nature,* drinking according to thirst, with the full assurance that she will be a safer guide, under those circumstances than all the rule-makers and theorists in the world.

Temperature of Drinks.—As to the temperature of drinks, those that are *cool* or moderately warm are more healthful than those that are extremely hot or cold. And, if our habits as to diet were as they should be, we would not have that morbid desire for very cold, iced, and acid drinks which so often leads to excessive indulgence and fatal consequences. The best plan, then, to avoid the dangers arising from this source, is to refrain from the use of highly seasoned food and stimulating drinks. By pursuing this course, it is highly probable that we might safely gratify any moderate and *natural* desire we might have for cold drinks. But, in the present mode of living, all who indulge in iced beverages are in great danger, because the desire is unnatural, *acquired*, while the very things that create the craving, at the same time render the system incapable of gratifying it with impunity. Ladies, in their attendance on night parties, and other places of public resort, are much exposed to dangers arising from the excessive use of cold drinks. At such places, there is a combination of circumstances well calculated to excite an unnatural artificial thirst, while the same influences render the system peculiarly susceptible to any morbid impression. These thirst-provoking and disease-inviting agencies are crowded and over-heated rooms, highly stimulating food and drinks, and in many cases a degree of mental excitement bordering on delirium, from the active play of all the social and moral feelings that can agitate the human breast. These combined excitants fan the whole organism into a feverish flame; the lungs are heated and debilitated, the brain is feverish, the nerves

are agitated, the stomach is oppressed; and now a large draught of some iced and acid beverage is taken, and incurable disease or sudden death is the sad consequence. Those who have weak lungs are peculiarly exposed to the dangers we are endeavoring to depict; and a single glass of ice-cream, or draught of ice-water, under the circumstances mentioned, has too often been *like a chalice charged with deadly hemlock!*

A WARNING TO WOMEN.—In view of these dangers, then, we would most earnestly warn our fair readers against the use of very cold drinks, and *especially* at night parties, when the body is heated and debilitated. Rely not on your youth, and your vigorous constitution; and be not lulled into false security by the absence of any immediate ill effects; for be assured that *few,* VERY few, can indulge with impunity—that slow dyspepsia, or some insidious form of disease, will be the result, though the consequences may not always be immediate and manifest. The only safety, under such circumstances of excitement, is in *total abstinence.* Would that we could express all that we feel on this subject! would that we could effectually warn our fair countrywomen against the thoughtless indulgences of fashionable parties, which have hurried so many of the fairest and the best to the grave!

Artificial Drinks.

WINES, CORDIALS, &c.—The artificial drinks introduced by the caterers to the depraved tastes of "modern civilization" are almost innumerable; but we only propose to notice those in most common use, in their relations to health. As to the stronger alcoholic

drinks, brandy, rum, &c., &c., it is needless for us to say anything to *ladies*, for no warning is necessary to induce them to discountenance, both by precept and example, a habit so unlady-like, so destructive in its physical and moral effects, as the use of ardent spirits as a beverage. And women of all classes and conditions—in the humblest as well as the highest walks of life—will surely wage a ceaseless warfare against these fell destroyers which have murdered so many of their fathers, husbands, and brothers, and brought so many of their children to penury and rags. But a word of caution may be necessary as to the use of wines, cordials, liquors, and various Frenchified compounds that come under the head of "light innocent (!) drinks, suitable for the delicate palates of ladies." Even admitting that the pure juice of the grape is not hurtful, these wines and "fancy drinks" should be wholly rejected; for most of them are vile compounds of home manufacture, containing various deleterious and even poisonous ingredients, which must be more or less detrimental to health, apart from the exciting effects of the alcoholic element. These drinks are made up of alcohol colored with logwood, and sweetened with sugar of lead and such like *dye* stuffs. We repeat, then, that all these should be entirely rejected; for, apart from their influence on health, women should never encourage a practice by their example, which may lead others to stronger drinks and a drunkard's grave. The whole class of alcoholic drinks, from the mildest to the strongest, should be regarded as medicines, useful, indeed, in some morbid

conditions, but fraught with danger when used either habitually or occasionally, in health, and as beverages.

TEA AND COFFEE.—This is one of the vexed questions in dietetics—doctors differ so much that we very much fear that people will take license to do pretty much as they please. Yet we feel in duty bound to give our views, however much they may conflict with those of others. Abd-el-Kadir says that "God has deprived fools of coffee, and the truth is not known except to the wise, who drink it from the foaming coffee cup." This sounds a little like the extravagance of Eastern hyperbole. The ultra-hydropaths, who look on *sage-tea* and *mint-water* as poisons, of course roundly denounce both tea and coffee even as medicines. Dr. Hall, a very popular writer, endeavors very cautiously to steer between extremes. He says in his "Journal of Health:" "Considering our habits of life, coffee, as a beverage for breakfast, is nutritious and healthful, and may be taken in moderation, for a lifetime, without failing of its advantageous effects. A single cup, moderately strong, never increased in strength, frequency, or quantity, is a positive good, and is far better than as much cold water at any meal, especially to invalids or persons of feeble digestion." All these restrictions and qualifications show plainly that the writer considers himself on very ticklish ground; and when this defence is analyzed, what does it amount to? Why nothing but a comparison of the effects of hot and cold drinks—a compromise with our bad habits—the admission of one evil to counteract others, and a prescription for invalids. This mode

of treating the subject is very objectionable; instead of making dietetic prescriptions to suit bad habits, the cause of truth requires that these habits should be boldly attacked, and the necessity for a doubtful and dangerous remedy be thus avoided. And even admitting that tea and coffee could be safely used after Dr. Hall's cautious manner, no one at all acquainted with human nature can believe, for a moment, that the drinking would be restricted to a *single* cup, at *breakfast*, *moderately* strong, and *never* increased in *strength*, *frequency*, or *quantity*. Why, it would be just about as easy to believe in the literal truth of Abd-el-Kadir's extravagant encomium, and to come to the conclusion that *all* coffee drinkers are exceedingly wise.

Our Views—Properties of Tea and Coffee.—So much for the opinions of the doctors. By most of the people, these beverages are considered indispensable necessaries absolutely essential to existence; and many families would as soon think of doing without bread as without tea and coffee. To such we say, lay aside the prejudices of education, as far as possible, and hear the properties of these favorite drinks. It is admitted on all hands that tea and coffee contain very little nutriment; that tea, and especially green tea, is astringent; while both tea and coffee are narcotic stimulants, producing effects on the brain and nerves similar to those of opium, laudanum, &c. These things being so, then, surely no one will contend that astringents, stimulants, and narcotics are necessary for healthy persons; on the contrary, all must admit that the free use of drinks possessed of these properties must be injurious. Astringents draw and contract

the stomach and bowels, and diminish the healthy secretions; stimulants and narcotics excite the heart, brain, and nerves, and this excitement is followed by dullness, and a general sinking and giving way of the mind and body when the accustomed stimulus is withdrawn. Such being the effects of tea and coffee, they cannot be properly regarded either as food or drink; and they must therefore be placed among the *medicines*, with alcohol, opium, and such like. As medicines, they are unobjectionable; and they might often be used to great advantage in disease, to the exclusion of more dangerous remedies, if the brain and nerves were not blunted and paralyzed by their habitual use as beverages. These views will doubtless be regarded by many as the idle fancies of a dreamer; but though they may be ridiculed now, we believe that truth will ultimately prevail; that a physiological millennium has already dawned on this disease smitten earth; and we trust that the day is not very far distant, when the general diffusion of sound hygienic knowledge will banish tea and coffee from the table, and place them on the shelves of the apothecary.

Effects of Tea and Coffee on Women and Children.—The common practice of allowing children two or three cups of strong coffee or tea at each meal, cannot be too strongly condemned. In children, the nervous system is highly excitable, and the use of these beverages increases the tendency to convulsions and other grave affections originating in over-excitement of the brain and nerves. If a child be trained physically, in the "way in which he should go"—if proper attention be paid to air, exercise, diet,

clothing, and bathing, there will be no necessity for any artificial excitants to drive the vital machinery, except in some extreme cases of hereditary or congenital weakness; and even original constitutional defects can be much better remedied by a judicious use of the hygienic agents mentioned, than by the use of all the nervines, stimulants, and tonics in the whole drug catalogue. Many of the general and peculiar disorders so common among women, doubtless arise from the excessive use of tea and coffee. Some of these can only be mentioned in this place. "Whites," which is one of the most common disorders to which women are subject, is caused in many cases by indulgence in tea, coffee, and other warm enervating "slops." These drinks render the blood thin and watery, while they relax and weaken the blood-vessels, so that they pour out this whitish discharge, or a thin watery blood: in the first case, the discharge is called "whites" —in the second, excessive menstruation. The general derangements of health arising from the use of tea and coffee are too numerous to be mentioned even: some of them are disorders of the nervous system, such as headache, trembling, hysterics, and all the nameless ills embraced in the term "*nervousness*:" besides these we have indigestion with its manifold symptoms, &c., &c. And there can be no doubt that the *complexion* is injured by these drinks, and particularly by the use of coffee; for reason would teach us that any habit that would produce the serious derangements mentioned, would affect the skin; and our reasoning is fully confirmed by observation. For

proof, look at the sallow wrinkled skins of confirmed coffee drinkers.

TOTAL ABSTINENCE.—In conclusion, then, we advise our readers, as they value their own health, as they value the health of their children, as they prize the charms of all-powerful beauty, to refrain from the use of tea and coffee as beverages. Declare total abstinence except as medicines; for if a great deal will do *much harm*, a little will do *some* harm; and as we are constantly liable to excess, even admitting that there is a safe point of *very moderate Hall*-indulgence, it is better, far better, to follow the advice so strongly insisted on with regard to alcoholic and iced drinks.

CHOCOLATE.—This being destitute of the stimulating and narcotic properties of tea and coffee, is much more wholesome. Indeed, there is nothing objectionable about this drink, except the large quantity of oil it contains. This makes it difficult of digestion, and therefore unsuitable for weak stomachs: except in such cases, the cause of health would be much promoted by the substitution of chocolate for tea and coffee.

HOT-WATER TEA.—Hot-water tea (Dr. Hall's "cambric tea") used to be quite common in the days of our childhood, and it would be well for us to return to it. Being made of simple hot water mixed with milk and sugar, it is highly nourishing, unstimulating, and entirely destitute of all injurious properties; and besides, the temperature can be adapted to the condition of the stomach where cold drinks are objectionable. And in addition to all this, it is palatable to every taste which has not been blunted and perverted

by high "seasonings" and strong drinks. We believe that ninety-nine children out of every hundred would take to hot-water tea as naturally as to their mother's milk, while the taste for tea and coffee is unnatural and acquired.

ACIDULOUS DRINKS—ALE, PORTER, &c., &c.—Acidulous drinks, such as lemonade and the expressed juice of various fruits, are unobjectionable when taken in moderation, but they are better in sickness than in health, and should never take the place of pure, simple, unadulterated water. *Soda water* is water impregnated with carbonic acid gas; it is grateful to the stomach, and wholesome with the above restrictions. *Effervescing* draughts, formed by the addition of tartaric acid to soda, potash, &c., may be used as *medicines*, but cannot be recommended as ordinary drinks. The preparations containing ginger, as ginger pop, and ginger beer, are still more objectionable, because the ginger heats and irritates the stomach, to say nothing of the alcohol generated by the process of fermentation. The fashion of drinking ale and porter, so common in England, we believe has never extended to the women of that beef-eating and beer-drinking nation; and we trust that the custom will never be adopted in this country, either by men or women. Ah, what a dark catalogue it would be if all the diseases, crimes, and deaths, could be enumerated that have resulted from the custom of drinking wine, beer, ale, &c., "to aid digestion!" And we regret that some of our most distinguished medical writers have been so far blinded by custom and education as to commend this soul-and-body-destroying practice.

Mineral Waters.

COMPOSITION.—Mineral waters contain a great variety of ingredients, as iron, soda, potash, magnesia, sulphur, &c., &c. A preponderance of any one of these elements gives name to these waters, as *chalybeate* waters where iron is a principal ingredient—*sulphurous,* or sulphur waters—*carbonated, acidulous* or acid waters, &c., &c.

NOT REQUIRED BY WELL PEOPLE.—HOW GOOD EFFECTS ARE LOST IN DISEASE.—Many mineral waters possess valuable medicinal properties, but it is all a mistake to suppose that well people can be benefited by drinking them; for the same rule still holds good—*for healthy people the purer the water the better.* And it is unfortunately the case, that the good effects of mineral waters are often lost in disease, from want of adaptation to each individual case, and from the bad manner in which watering-places are generally managed. People seem to have an idea that a mineral spring is —*a mineral spring;* or in other words, that mineral waters are pretty much alike, and that nature has given all a specific adaptation to every kind of case. A more erroneous idea could not well be conceived, unless it be the no less prevalent notion that the nostrums published in newspapers, are appropriate to all the cases for which they are recommended. To derive any *medicinal* benefit from "a trip to the springs" the *case should be adapted to the water,* just as we would select a remedy for the disease from the drug store.

CASES IN WHICH CHALYBEATES ARE APPROPRIATE.

—If iron is a principal ingredient of water, this is, as a general rule, adapted to cases in which the medicinal use of iron would be indicated: this would include diseases of debility, as green-sickness, some forms of dyspepsia, some nervous disorders, and some kinds of dropsies. Chalybeates being specifically adapted to cases of debility, it follows that they are entirely out of place in the opposite class of inflammatory affections. And even diseases in which debility is a prominent symptom often present themselves under forms and circumstances that would forbid the use of iron. The practical deduction from these facts is: that invalids should not choose a watering-place for themselves, but should consult their physician.

The above remarks may with equal propriety be applied to every kind of mineral water—each has some prominent element or elements, that gives to it a special adaptation to a certain limited class of disorders, while in an opposite class it would be useless or injurious.

Health-destroying Customs at Watering-places.—But even in cases where mineral waters are appropriate, their good effects are often entirely counteracted by the ruinous customs of fashionable watering-places. How can an invalid reasonably expect to improve when the diet is improper in quality, excessive in quantity, and irregular in time—when hours which should be devoted to rest, are spent in close crowded rooms where everything is adverse to health—where the air is poisoned—where the food and drink are deadly, and where the *mind* is often a prey to a strife of passions that fret and torture the

poor body, like a frail bark lashed by an angry storm?

MINERAL WATERS BENEFICIAL.—Though the good effects of mineral waters are thus counteracted—though they are often prescribed by physicians in hopeless cases to amuse the minds of patients, and to relieve themselves, and of course fail; yet we believe that medicinal springs and wells were not made without a purpose—that God mercifully designed them for the healing of our maladies, and that they would be much more efficacious, if the circumstances just passed in review were regarded in resorting to them. It will be seen then that we stand opposed to the ultraists of these modern days, who would reject even their *mothers' milk*, if it were not adapted to their notions by a large admixture of *water*.

Purity of different Kinds of Water.

MINERALS NOT INJURIOUS.—All water in percolating through the earth becomes more or less impregnated with various salts: a conclusive evidence this, that the "minerals" so much harped upon by modern reformers are not necessarily injurious to the animal creation; for it is nothing less than a wicked imputation on the wisdom and goodness of the Almighty to say that he has mingled "poisons" with the water provided for his creatures.

PURITY OF RAIN-WATER, &c.—*Rain*-water, it is known, is the product of evaporation from the earth, sea, &c.; and as all earthy and mineral matters are left in deposit by the evaporating process, it follows that rain-water is the purest of all natural waters.

Spring and *well* water contain more or less earthy and saline matters, according to the nature of the soil; but as before intimated, these elements are not injurious, except in certain localities where they are found in great excess, causing the water to be so hard that it will not mix readily with soap. This excess of lime, in limestone regions, is a common cause of gravel and stone.

MODES OF PURIFYING WATER.—Of the many modes of purification, only one is adapted to general use: this is *filtration*. By this process, water may be deprived of most of its impurities except those in actual solution. *Distillation* is the most effectual mode of purifying water, but is too troublesome for general use; and besides, distilled water is insipid, artificial, and not so well adapted to our wants and necessities, as Nature's own beverage mixed with "*minerals*."

CHAPTER V.

OF DIET.

"In what thou eat'st and drinkest seek from thence
Due nourishment, not gluttonous delight;
So thou may'st live till, like ripe fruit, thou drop
Into thy mother's lap, or be with ease
Gather'd, not harshly pluck'd, for death mature."

ANIMAL DIET—USE AND ABUSE.—There have been a few in every age of the world who have existed exclusively on the fruits of the earth; and it is well

known that some ultraists and pseudo-reformers "in these modern days" contend that man should live on vegetable diet alone. But arguments founded on the injurious effects resulting from the abuse of animal food, cannot be opposed to its proper use; and the fact that vegetarians have preserved health, and attained long life, is far from being conclusive, when the advocates of a mixed diet can appeal to the same argument, with equal, if not greater confidence; and above all, when the latter have the Bible, the anatomical structure of man, and the great mass of human experience in all ages, on their side. And as this evidence has never been satisfactorily confuted, we feel justified in assuming that man is omnivorous, and that a due admixture of animal and vegetable food is most suitable for his perfect development.

In what our Errors consist.—The fact is, our dietetic errors consist, not so much in the *quality* of our food, as in its *quantity*—not so much in its actual nature, whether animal, vegetable, or mixed, as in its *relative influence* in connection with individual peculiarities, habits, climate, modes of life, &c., &c. Instead, then, of generalizing as to the kind of food most suitable for the *race*, let us pursue the more reasonable and practical course of endeavoring to ascertain what is best relatively—what is best for each *individual* under the circumstances by which he may be surrounded.

Diet for the Sedentary and Inactive.—Animal food may preponderate in the diet of those who lead an active laborious life, not only without injury, but with decided advantage; for animal food is not only

very nourishing and readily assimilated or changed into our bodies, but it is the more lasting and invigorating. On the other hand, animal food is not only useless, but often positively injurious to those who lead an inactive, sedentary life; for the body is over-nourished, heated, and excited by such a diet, and the system is rendered prone to inflammation, while the pores of the skin, and other safety-valves of the human machine, being closed up for want of exercise, a fatal explosion is often the result. How destructive must it be, then, for literary persons, and for women, who are generally much confined either from necessity, or through the customs of society, to indulge in meat three times a day! Such persons should eat very sparingly, if at all, of meat, and particularly of "hog-meat," which is certainly the most stimulating of all the articles of its class. Indeed, it would be better, as a general rule, for people who do not lead an active life, to refrain entirely from meat of all kinds.

BEAUTY, HEALTH, AND MIND LOST.—Women, who consume too much gross food and take too little exercise, are liable to indigestion with all its horrors of mind and body, and to a host of other maladies which we cannot even enumerate: the skin becomes thick, harsh, pimpled, and discolored—the breathing is tainted, sometimes contracting a nameless and most offensive odor—the features are swollen, dull, inexpressive, and sometimes almost idiotic. Thus is lost "the smoothness and the sheen of beauty's cheek;" thus the sunlight of the immortal mind is clouded, and all the nameless charms of expression obscured.

VINEGAR AND GROSSNESS.—A BETTER WAY.—

Under the above circumstances, an attempt is sometimes made to restore the beauty of the complexion, and prevent excessive fatness, by the use of vinegar and other acids. The remedy may be successful, but success will most surely be attained at the expense of health; for acids can only accomplish the end designed, by interfering with the digestive and assimilative processes. The only safe and effectual remedies for grossness and pimples, are pure wholesome food in moderate quantities, and mostly vegetable; pure air; sufficient exercise, and frequent ablutions. These are the only cosmetics that should be resorted to, and they are the true elixirs of life and beauty. These agents are more effectual in the preservation of health and beauty than all the drugs, vegetable or mineral in the whole long list.

Individual Peculiarities as to Diet.—These peculiarities should be taken into consideratien in the selection of our food; and they are either *original* or *acquired*. Persons may be weakly and puny from birth; and their digestive organs may so far partake of the general debility as to digest vegetable food with difficulty; for, as it has been seen, animal food is, as a general rule, more readily digested and converted into our tissues than vegetable food, because the former contains the elements of our bodies ready formed. Under these circumstances, all other things being equal as to exercise, habits of life, &c., more animal food might be beneficially used than would be proper under different circumstances. But great judgment should be exercised in these cases; and whenever it is deemed necessary to increase the pro-

portion of animal food, strict attention, at the same time, should be given to pure air, regular exercise, &c. This course has a double advantage—it tends, as we have just seen, to counteract the injury that might result from an excess of animal diet, and it directly and most effectually aids in building up and invigorating the whole system. It would be well for mothers who have feeble scrofulous children, to remember these things.

Acquired Peculiarities.—In adapting our food to our acquired peculiarities, even more caution is necessary; for these peculiarities are often nothing more nor less than *diseases* caused by errors in diet—*by those very kinds of food that seem to be necessary on account of the diseased condition.* For instance, one may use a concentrated animal diet, small in bulk, but highly nutritive and exciting to the system; and if this over-excitement is combined with a sedentary life, apoplexy will in all probability ensue, or dyspepsia from contraction or diminished size of the stomach. Now, this state of things would require a more bulky and less stimulating diet; but then the walls of the stomach have become permanently contracted from want of bulk in the food previously used, and consequently a bulky vegetable diet—*the very one demanded*—painfully distends the stomach, and cannot be borne. Under these circumstances, we are very apt to come to the conclusion that animal food is best for us, when it is really the cause of all our difficulties. The course in these cases is to make the change from an animal to a vegetable diet gradually, increasing the bulk of our food by degrees, as the stomach may be able to bear it.

OTHER CASES IN ILLUSTRATION.—This subject is so important, that we may be excused for illustrating it by other habits connected more particularly with our eating and drinking. A lady is troubled with "nervousness" and headache: this is a "peculiarity" of hers requiring the use of strong coffee and tea, which give relief. And yet this is an acquired peculiarity caused by this same tea and coffee. The headache and nervousness are the result of a kind of collapse or giving way caused by the withdrawal of an accustomed stimulant; and thus the unfortunate victim of a pernicious habit is never "right," except when under an unnatural and unhealthful excitement. The analogy between this state and that of the poor drunkard is obvious and complete, the only difference being in the *degree*, and not in the *kind* of excitement.

ANOTHER CASE.—WIND-COLIC AND STIMULANTS.—Another lady is troubled with dyspepsia and flatulency, or wind-colic; she cannot digest her food without the use of pungent stimulants and seasonings such as spices mustard, pepper, &c., &c. And yet, in all probability, the loss of tone in the stomach, which requires a resort to these excitants to rouse it to action, has been occasioned by the excessive use of condiments; for the ultimate effect of these is debility and weakness of the stomach, following from over-excitement.

AN IMPORTANT LESSON.—These examples, which might be multiplied, should teach us the following highly useful lessons: 1st. That our acquired peculiarities should be very closely watched, and that we should not be misled by an apparent necessity, into

a continuance in the habits that have caused those peculiarities, when those very habits are destroying us. And 2d. That changes should be made under such circumstances, not suddenly, but gradually.

CLIMATE AND FAT BACON.—Climate is another circumstance that should influence in the relative amount of animal and vegetable food. It has been seen that animal diet is more stimulating and exciting than vegetable: hence, the inhabitants of tropical countries instinctively seek for vegetables, and their diet consists mostly of rice, potatoes, and the various fruits of the earth. But in civilized life, our tastes are so perverted by habit and education that these instinctive monitions are disregarded. These remarks apply more particularly to our Southern States, for there is no doubt that the extravagant use of fat bacon and pork is a most fruitful source of disease in our warm climate. These are the staple articles of food for men, women, and children,—for the active and sedentary, the delicate and the robust; and when it is remembered that this is a positive violation of the laws that govern our being, and that all swine flesh is more heavy and indigestible than any other, we cannot be surprised at the extensive prevalence of fevers, "liver complaints," dyspepsias, "bowel complaints," blotches, tetters, salt rheums, and various other disagreeable and dangerous skin diseases, sore eyes, &c.

ELEMENTARY NATURE OF FOODS.—"MINERALS."—Of the various chemical elements considered essential ingredients of our bodies, many are minerals, as iron, sodium, calcium, magnesium, potassium, &c., &c. And

as these elements are found in greater or less quantity in the different articles of food, as well as in our drinks, we have another conclusive evidence that "mineral medicines" are not necessarily injurious to the human system. We are free to admit that this class of remedies (and the same might be said of all others) has been greatly abused, but their occasional and judicious use is in strict accordance with the teachings of infallible Nature, sustained by the incontrovertible evidence of accumulated experience, whatever would-be reformers may say to the contrary.

Variety and Bulk necessary.—Dieting.—It is worthy of remark that no one of what are called elementary principles of food, such as gum, sugar, fat, starch, &c., will sustain life for any great while. And though our errors generally consist in too great variety, the above fact should be borne in mind; for want of sufficient variety is doubtless a source of disease in some cases, and especially in delicate persons who are "dieting" themselves. With many people "dieting" means starvation, or living for weeks and months on a single article of food. This is all wrong: dieting, strictly and properly, is to adapt the food in quantity, quality, and variety, to the wants of the system, under the particular circumstances of each case: and though the allowance is generally shortened in this day of over-eating, dieting does not necessarily include the idea of broths made of diluted nothings, administered in homœopathic doses. Besides variety in our food, bulk is necessary, in order to expand the stomach and bowels, to prevent undue contraction, and to excite those muscular movements

that are necessary to digestion, and to the expulsion of the contents of the bowels. We will recur to this subject again.

Nutritiveness and Digestibility of Foods.

DIFFERENCE BETWEEN THE TWO.—These things are liable to be confounded, but they are entirely distinct. A substance may be very nutritive, and yet very difficult of digestion, and on the other hand it may be easy of digestion, and yet may afford but little nourishment. The *nutritiveness* of an article of food is measured by the amount of material it may furnish for building up the body. The *digestibility* of food is determined by the facility with which it is dissolved and changed by the stomach, &c.

FIRMNESS AND DENSITY NECESSARY TO DIGESTION.—We have just seen that a certain bulkiness is necessary to digestion: a certain degree of firmness and density are equally important. If our food be too dense and close in its texture, the process of digestion will be retarded; and the same difficulty will occur if our food be too soft and fluid. In the first case, the action of the gastric juice will be resisted; and in the second, the stomach cannot grasp the food, and turn it about sufficiently. This will teach us, that fluids and slops are not always best for weak stomachs; a fact that many have verified by personal experience.

ANIMAL FOODS, MILK, BUTTER, CHEESE.—Of animal foods, *milk*, the fluid furnished by nature for our nourishment in early life, merits the first attention. Milk consists of cream, curd, and whey. The cream is a compound consisting principally of butter and cheese.

When milk sours it separates into whey and curd. This whey contains various "minerals," as potash, lime, and iron. And thus do we drink in these "poisons" with our mothers' milk. It will be seen from this brief notice of the composition of milk, that it is a highly compound nourishment. In this we find an illustration of the truth, that no single element of food will support life; for in milk is provided water to distend the stomach, dilute, wash out, nourish, &c., butter and oil for heat, and lime and other minerals for making the bones solid, and for other purposes. Albumen, one of the nutritive elements of milk, rises to the surface in the form of a thin scum on boiling: this may be skimmed off, and the milk may thus be made more digestible for weak stomachs, but at the same time it will be less nourishing. Therefore milk should not be boiled and skimmed, where a very nourishing diet is required. Milk, without any preparation, is very digestible and easily converted into our bodies; and it does not cause that heat and excitement that generally arise from the use of other kinds of animal food. Being composed largely of water, this is readily absorbed by the stomach, and as the solid portions only are digested, a large quantity of milk really imposes less labor on the stomach, than an equal quantity of any other food. Very soon after milk is swallowed it is curdled by the action of the stomach, and as the act of vomiting is very easy in children, any excess of curd that might oppress the stomach is readily thrown off. Milk varies somewhat in different animals; that of the goat and ass, approaching human milk more

nearly than the milk of any other animal. Butter and cheese, though they are generally easily managed by the stomach, as they exist in combination with milk, are yet rather hard of digestion when in a separate state. Old cheese is highly indigestible, and should never be eaten by any one. Butter is not so objectionable, but its oily nature makes it a bad thing for weak stomachs, all oils being digested with great difficulty.

Vomiting in Children.—Before dismissing the subject of milk, it may be well to add that the vomiting of curd, so common in children, is no evidence of disease, but rather an evidence of health; curdling of the milk being the natural effect of the gastric juice. But while the vomiting of curd is no symptom of actual disease, it is an evidence of injurious overloading of the stomach, which is quite a common error; and did not Nature relieve herself by vomiting, many more children would be sacrificed than there are.

Eggs—Fish—Birds.—Next to milk in nutritive ness and digestibility may be placed eggs. But perhaps nothing is more influenced by the mode of cooking. Soft-boiled eggs are digestible, but hard eggs are almost as difficult for the stomach to manage as sole-leather; and no one who has any compassion on this useful organ will impose on it the task of digesting a hard egg. Fish is considered to be less nutritive than mutton or beef, but it is sufficiently so, while it is not difficult of digestion, and is destitute of the stimulating effects of other kinds of animal food. These properties render fish a highly valuable

article of diet in many cases. Of the different kinds of fishes, those that are whitest and least oily are the most wholesome and digestible. Among the numerous species of the fish tribe, we can only mention the white shad, which runs up our waters every spring. They are wholesome in moderation, and one of the greatest luxuries that we of the South enjoy. Shell-fish are generally highly indigestible. Oysters are tolerably nutritious, and not very difficult of digestion when eaten raw, but cooking renders them less digestible. Oysters are generally gulped down whole, with pepper and other stimulants; all of which is highly objectionable. Many of the shell-fish tribe are poisonous at certain times, and it has been supposed that this is the case with oysters, which are certainly the best of their family. The flesh of birds differs greatly as to nutritiveness and digestibility. According to Dr. Paris, "the whiter meat of domesticated birds, as the wings and breasts of chickens, contains less nutriment, and is less digestible than that which is furnished by wild birds, as the partridge, &c.; but the former is, at the same time, less stimulant and heating than the latter."

Beef, Mutton, &c.—Beef, mutton, and most of the vegetable-eating tribe, are healthy for food when not *monstrously* fat. But in the use of all kinds of animal food, all the relative circumstances as to exercise, habits of life, climate, &c., should never be forgotten; and we repeat the opinion that persons who do not lead an active life, had better touch all animal food very lightly; and that most people who do not exercise a good deal would be better off if they would abstain entirely.

Cooking Meats.

THE BEST MODE.—All meat should be cooked done, but not more; meat moderately cooked is preferable to that which is over-done. *Broiling* is the best of all modes of cooking meats of all kinds. *Boiled* meat is generally digestible, but it loses much of its nutritiveness by the solvent action of the water. But as one of the elements partially abstracted by the water is fat, which is so difficult of digestion, and of which we generally take such an excessive quantity in this meat-eating country, we lose nothing, in this way, by boiling.

THE WORST MODE.—FRYING IN THE SOUTH.—Frying, in cookery, occupies the place of hog-meat in dietetics: it is the most abominable of all modes; and perhaps this is the reason why it is most common; for it does seem that our tastes have become so perverted that we are most likely to fall on the very things most injurious to health. In the Southern States, frying is oftener resorted to than any other mode of cooking. If Southerners cannot manage to take in a sufficient quantity of grease, in the form of fat bacon and pork, to sustain them, and keep up the heat in their *rigorous* climate, they are sure to supply any deficiency by saturating their peas, beans, potatoes, bread, and everything else, in that most desirable of all things—*hog's-lard.* Hence, we have fried vegetables of all kinds, fried meats almost invariably, fried bread and hominy not unfrequently, and fried everything, so long as the ample supply of *essence of hog* holds out. Why, in the South, hog's-lard is the oil

that greases the wheels of life and keeps them in motion; and people would no more think of doing without it, than they would of doing without coffee, or tobacco, or any other indispensable.

ROASTING—BAKING.—Roasting is not so good as boiling meat; for though more nutriment is retained, the meat is less digestible. Baking, in which the greater part of the oil is retained, renders meat difficult of digestion, but from the retention of the various elements it is highly nutritious.

Vegetable Food.

WHEAT.—LIGHT-BREAD.—The vegetable kingdom furnishes an almost endless variety of highly nutritious and wholesome aliments. First on the list stand the *farinaceous* grains—wheat, corn, rye, &c., &c.

Wheat contains starch, albumen, gluten, sugar, oil, water, a husky matter covering the grain, and several less important elements. It will be seen from this enumeration that it must be highly nutritious, and as all the grains belonging to this family possess similar properties, bread may well be called the "staff of life."

Gluten is a tenacious substance, most abundant in wheat, and it is this that causes bread to rise. The gluten acts by entangling the carbonic acid gas generated by fermentation; and a due proportion of this gluten is indispensable in making light-bread: if there is not enough to prevent the escape of the gas the bread will not rise.

HOW ACIDS AND ALKALIS ACT.—Heretofore, yeast has been used in making light-bread, but of late years this has been supplanted, to a considerable extent, by

a combination of acids and alkalis, as bicarbonate of soda and cream of tartar, soda and vinegar, soda and butter-milk, soda and hydrochloric acid, or "spirit of salt." The principle on which these things act is the same, but the product is different in each case. In each of these combinations, carbonic acid gas is disengaged as in the yeast fermentation; but at the same time, a new compound is formed. When bicarbonate of soda and cream of tartar are united, the acid in the cream of tartar combines with the soda, setting carbonic acid gas free, and forming a tartrate of potash and soda; or a purgative salt commonly known as "Rochelle Salts," one of the ingredients of Seidlitz powders. When soda and vinegar are united, an acetate of soda is formed: soda and buttermilk form a lactate; and the combination of hydrochloric acid and soda results in the formation of table salt. These chemical details are given because the above acids and alkalis are extensively used, and ignorance of the simple principle on which they act, spoils a great quantity of bread. It is not unfrequently the case that soda or saleratus is used without any acid, and the consequence is, the bread does not rise well, and is yellow, with a very disagreeable smell like lye.

ARE THEY WHOLESOME?—The salts formed by the chemical changes mentioned, may all be properly placed in the list of *medicines,* unless the "common salt" be an exception. And though these medicines are of the most mild and innocent class, it is very doubtful whether they can be taken daily, even in small quantity, without more or less disturbance of the system. They act on the kidneys or bowels, or

both, and though the effect may be slight, it is artificial, unnatural, and it is highly probable that its long continuance would result in disease of those organs. These are the difficulties that present themselves when everything is duly proportioned, and a neutral salt, with no excess either of acid or alkali, is formed. But when the soda is in excess, as is often the case, it accumulates in the system, and is an undoubted source of disease. Of the different compounds mentioned above, the least objectionable are hydrochloric acid and soda, and buttermilk and soda. If the hydrochloric acid and soda be united in such proportions as exactly to neutralize each other, "common salt" will be the result, which is certainly a healthful article, in moderation. But two great difficulties present themselves in using these articles:—Hydrochloric acid is a corrosive and dangerous poison, when not neutralized by an alkali. It becomes, then, a serious question whether so active an agent should be intrusted to an ignorant cook. But, admitting that this danger may be avoided by proper care, another, no less formidable, arises: in the preparation of the acid itself—in the process of manufacture, it is liable to become impregnated with hurtful and even poisonous ingredients, that no care could remove or guard against. Buttermilk and soda are not liable to these objections, but as the strength of the acid is very variable, it is difficult, and often impossible, so to proportion it as to neutralize the soda exactly. In view of all these facts, it is highly probable that the modern innovations in light-bread making have sacrificed health to convenience.

FERMENTED BREAD.—UNLEAVENED BREAD MOST WHOLESOME.—Fermented or yeast bread is doubtless the most wholesome of the light-breads; but then the fermenting process is slow and uncertain, and it requires a tact and management that comparatively few cooks possess; for if the fermentation is stopped too soon, the bread is heavy and unfit to eat; and if it is too long continued, some of the most nutritious elements are destroyed, and the bread becomes sour from the generation of acetic acid, or vinegar. This is often the case with bakers' bread, which, though very white and light, is the most inferior of all flour bread. This bread is also often adulterated with *alum* and other bleaching preparations, intended to whiten poor flour. The fact is, unleavened bread is more wholesome than any kind of fermented or raised bread, and we would therefore advise all who value health, and who would avoid the trouble, inconvenience, and dangers of light-bread making, to return to the primitive simplicity of nature, and to use unbolted, unraised, and unfermented bread.

FINE FLOUR.—USE OF WHEAT HUSKS.—Wheat in its natural state before it passes through the bolting cloth, consists largely of a husky substance enclosing the grain; and this, by its mechanical action or friction against the inside of the bowels, is the very best of all bowel regulators, or "peristaltic persuaders."

Dr. Warren, of Boston, after an experience of forty years, if we mistake not, unhesitatingly pronounced cracked wheat to be the safest and best of all remedies for habitual constipation, or torpid bowels. The same thing is true to a considerable extent of unbolted

flour, as is proved by the concurrent testimony of a great many physicians of ample experience. Fine flour is highly constipating to the bowels, and should not be used as food, except in cases of irritation of the bowels, where it may be desirable to check excessive discharges. There can be no doubt that the introduction of Dutch bolting-cloths was one of the greatest curses ever inflicted on the civilized world.

Receipt for making Bread.—We trust that what has been said will induce some, at least, of our readers to abandon the use of fine flour; but for those who will persist in using it, we give a recipe from a little work lately issued by William Hunt, of Boston. We have never tried the receipt, but it is highly recommended; and we are certain that fine flour could not possibly be prepared in a more wholesome manner.

"Mix good fine flour with pure cold water, and make a dough that can be rolled out and cut into strips, which must again be rolled into a round form, the size of the thumb or finger, and cut into pieces, three or four inches long; bake in a hot oven, ten or fifteen minutes; brown them nicely and serve fresh." This bread is no doubt "pure and sweet;" and if it were made of unbolted flour, we could not possibly see any objection to it, unless it might be rather hard and tough, for the teeth of "modern society."

Hot and Cold Bread.—Decayed Teeth.—Cold bread is best as a general rule, but it sometimes becomes close and clammy when cold. There can be no doubt that the common practice of eating hot bread, and swallowing hot drinks, is injurious to the

stomach, and destructive to the teeth. There must be something radically wrong in our habits, to cause our teeth to decay so early; for certainly it was intended that these beautiful and useful instruments should last as long as other parts of the body. We know of no cause more likely to produce decayed teeth, than the expansive action of heat on the enamel. Ladies who would preserve health and beauty, and who would escape the horrors of tooth-ache, would do well to remember this. Another cause of decayed teeth is general ill health and constitutional debility; but perhaps the most common of all direct causes, is to be found in the corrosive action of drugs, which are consumed to such an enormous extent in this country. In sickness the teeth should be particularly attended to: the mouth should be well washed, after swallowing medicine of any kind, and the teeth and mouth both should be washed at least once a day, whether medicine be taken or not. This will remove the acrid secretions that gather about the mouth and teeth in sickness, and will be protective to the teeth, and pleasant to the patient.

CAKES.—DUMPLINGS.—Cakes made of butter, eggs, &c., are generally unwholesome. *Ginger-cake*, when made with very little ginger, is more wholesome than most of its class. *Dumplings*, made of fine flour rolled and cut, are a great dish at the South. They are served up with stewed chicken, chicken and meat pies, &c., &c. As to digestibility, they might be classed with *raw hide*, and they are enough to ruin any stomach.

CORN BREAD.—HOMINY.—DYSPEPSIA, &c.—Indian

corn is used more extensively than wheat even. It is far preferable to fine flour, and is the most nutritious and healthful of all our "bread-stuffs." It is frequently injured by grinding too fine: the meal should be moderately coarse and round. Such meal as this, mixed up with cold water, either with or without salt, makes a delicious bread which is good either warm or cold. Corn meal, being deficient in *gluten*, will not rise. One of the best and most wholesome forms of corn bread is the "*ash-cake*," a common dish with Southern negroes. It is prepared simply by wetting up the meal with cold water; it is then put down on the hot hearth, and covered immediately with hot ashes. When taken out of the ashes, it is washed in cold water; and, whatever the fastidious may think of it, there never was a better bread in every respect than this plain ash-cake. Many times, in our boyish days, have we left the fine flour dainties of the "white folks" to beg a piece of ash-cake from the "niggers." *Hominy*, large and small, is a most excellent preparation of Indian corn. *Small* hominy or "grits" is made by coarsely grinding the corn. *Large* or *ley* hominy, when properly prepared, is a most palatable and wholesome dish. If all the ley is not washed off, it is one of the very best diets in cases of dyspepsia attended with heart-burn or sour stomach. The only drawback to the extensive use of this most nutritious, healthful, and economical food, is the trouble of preparing it, and its liability to sour in warm weather. Some excellent and wholesome *puddings* are made of corn meal, but we cannot stop to describe them. Corn meal mush is a superior article for delicate persons

and convalescents. It is generally taken with milk, and should be put into the milk quite hot.

Rice—Best Mode of Cooking.—In Bowel Affections.—Next to wheat and corn, *rice* is the most extensively used and wholesome article of its class. It is very nutritious, mild, and unstimulating; but in consequence of the absence of any considerable quantity of husks, it is too concentrated and "binding," unless other coarser food be mixed with it. But this very thing makes it the most useful of all articles of diet in cases of irritation and "looseness" of the bowels. Indeed, there are few of the simpler cases of diarrhœa that will not yield to rest, a flannel bandage around the belly, and a rice diet. Remember this when you or your children get sick. Boiling, combined with steaming, is the best of all modes of cooking rice. It should be boiled in water with a little salt in it; and when it is nearly done, it should be allowed to stand and steam in a covered vessel, until the grains are sufficiently dry to stand somewhat apart. It may also be boiled with milk, but as a general rule, the "Carolina mode" first given is best.

Peas—Beans—Roots—"Bacon and Collards."—Peas, beans, and oily nuts resemble the "breadstuffs" in their composition: they are nutritive, but more difficult of digestion than the grains, on account of the greater quantity of oil they contain. Among the *esculent* roots, the potato merits the first attention. It is highly nutritious, and generally digestible; but, like other articles of this class, it is apt to produce flatulence; this, however, is not likely to prove serious, except in persons of weak digestive organs. Potatoes

are considered to be most wholesome when boiled, but baking is a very good mode of cooking them; and perhaps there is none better than roasting in the ashes. *Turnips, parsnips, beets,* &c., are wholesome, with the exception above mentioned; and beets and carrots are quite nourishing, on account of the large quantity of sugar they contain. *Radishes* may be placed in this class, but should never be eaten either as food or condiment: they are too acrid and irritating for any stomach not lined with copper; and we agree fully with Mr. Peabody, a distinguished Southern horticultural writer, that radishes should always be sown "*in the fire.*" Among the esculent herbs, cabbage and collards are staple articles of diet with many people, particularly at the South. This kind of "greens" is moderately nutritious, and, when well boiled, healthy; but the immense amount of grease consumed with the greens, can but render them very indigestible. And unless some better mode of cooking than boiling with fat bacon can be invented, no one except the stoutest laborers should make "greens" an every-day diet. And yet many delicate and sedentary women in the Southern and Western States live almost exclusively on fat bacon and collards! *Lettuce* should be placed among the *medicines,* on account of its narcotic properties. *Cucumbers* consist mostly of water, and are of little value as nutriments; yet for healthy stomachs we see nothing very objectionable about them. The best mode of cooking the above esculents is boiling, as this tends to prevent the flatulency they are likely to occásion. As a general rule, the less grease with them the better, and especially hog-grease.

Fruits.—How eaten.—The fruit kingdom affords an almost endless supply of delicious and wholesome food. But as articles of this class are generally taken, they may, more properly, be considered as dangerous luxuries, than as healthful food—as a curse rather than a blessing. Dr. Paris says: "Were we to form our opinion of their value, from their abuse, we should certainly be rather disposed to class them under the head of poisons than of aliments." The great error in the use of fruits, consists in making them a dessert—in crowding the stomach with them, when it is already full; and in eating them at all times, between meals, when there is no natural demand or desire for them. Fruits, when taken along with our food, *as food*, and in moderation, are highly conducive to health, and as the writer just quoted appropriately remarks, they "appear to be providentially sent at a season, when the body requires that cooling and antiseptic aliment, which they are so well calculated to afford."

Stone Fruits.—Apples, &c.—Of the stone fruits, the peach is most delicious and digestible. Indeed, we know of nothing more desirable or healthful, among all the gifts of God, than good, fresh, ripe peaches. They should form part of either meal, or be eaten, in moderation, when the stomach is empty. The same remarks apply equally to *apricots*. *Plums* are less digestible than peaches, on account of their pulp; and all pulpy stone fruits are more or less indigestible, and prone to ferment in the stomach. The *apple* is one of the best of fruits. Baked apples will generally agree with the most delicate

stomachs, and are excellent in sickness. Green or half-ripe apples stewed and sweetened, are pleasant to the taste, nourishing, cooling, and loosening. *Pears* are also good. *Oranges* are very acceptable to most stomachs, but the skin covering the pulp should be rejected; and the same may be said of all skinned fruits.

MELONS.—ACTION ON KIDNEYS.—The earth produces nothing more delicious and wholesome, than our water-melons. We have not unfrequently allowed them to fever patients, not only without injury, but apparently with advantage. They act powerfully on the kidneys, and are certainly the most agreeable, if not the best of all kidney-exciters. Dr. Hall says: (Jour. Health)—"as to water-melons, they are the only things we know which can be eaten with impunity until we cannot swallow any more." This corresponds with our observation, yet this should not be considered a sufficient license for extravagant and unnatural indulgence. Be temperate in all things.

RULES GENERAL.—HOW TO MANAGE THE STOMACH.—In concluding these remarks on the nutritiveness and digestibility of some of the leading articles of food, it is proper to add that what has been said must be taken generally—that there are many individual exceptions, and that what is easily digested as a general thing, may act like poison to some persons under certain peculiar conditions. But in selecting our diet, it should never be forgotten that our artificial tastes and conditions are not always a safe guide, and that the very thing at which the stomach at first

rebels, is sometimes best for us. In this case the difficulty is in the morbid condition of the stomach, and not in the food, and the rebellious organ should be coaxed into a gradual change of its bad habits. Prudence and perseverance are here necessary: when a change is required it should be made by degrees, until the misguided stomach learns what is best for it.

Condiments.

WHAT THEY ARE.—Condiments or "seasonings" are those articles that possess no nutritious properties; but in combination with our food, they heighten its flavor, and in some cases promote its digestibility and correct some of its deleterious properties. But while this is true, it is very doubtful whether a healthy stomach, supplied with the proper kind and quantity of food, stands much in need of condiments to assist it in any way whatever. And it is certain that the extensive use of articles of this class in modern cookery, is an evil of enormous magnitude.

SALT—HOW IT ACTS.—SALT BACON.—Common salt is the most extensively used and the most wholesome of all condiments. It acts as a gentle stimulant and antiseptic, and in moderation is doubtless conducive to health; but we cannot agree with those writers who contend that a "free use of salt" is absolutely necessary to animal existence. And it is still harder for us to believe that our artificial craving for highly salted food is an evidence of the natural wants of the animal economy. Salt acts as an anthelmintic or worm-destroyer, but no one would be willing to pickle

the body and dry up its fluids to kill worms. Allusion has already been made to the injurious effects of fat bacon, and there can be no doubt that lean bacon, combined with an excess of salt, is almost, if not quite, as prejudicial to health. Salt prevents decomposition, or "saves meat" by abstracting the blood, and by combining with the animal fibre or muscle. And just in proportion to this abstraction of the fluids, and combination with the muscular fibre, does the salt render meat less nutritious and digestible. Dr. Dunglison says such "a combination of flesh and salt is very indigestible, and unfit for the dyspeptic." Now, if a small quantity will generally disagree with a dyspeptic, is it not highly probable that the extravagant amount consumed by many people (especially in the South and West) will finally wear out the strongest stomach? Our opinion is that this compound of salt and dried flesh should be used very sparingly by all, and especially by delicate women.

VINEGAR AND AROMATICS, &c.—Vinegar prevents the fermentation of certain substances, and particularly of vegetables, thus preventing flatulence. In small quantities, it is grateful and wholesome; but it should be used cautiously, like everything else of its class. The *aromatic* condiments are very numerous. They comprise the different kinds of peppers, cinnamon, nutmeg, cloves, ginger, thyme, sage, garlic, &c., &c. All these, and many more, such as pickles and dried salt herrings, enter largely into the food of civilized life; and they are all, more or less, injurious. They all stimulate the stomach unduly, create an unnatural

appetite, which leads to excessive indulgence, and finally palsy the taste and destroy the tone of the stomach. Many of them are acrid irritants, sufficiently so to inflame the stomach and cause immediate death, did not Nature protect herself by pouring out an abundant mucous secretion to blunt the acrimony of these offensive and unnatural invaders of the vital domain. All the *oily* condiments are difficult of digestion; and melted butter, in the form of sauce to dumplings, pastries, and other indigestible dishes, is absolutely ruinous to any stomach.

A RULE FOR THE CONDIMENTS.—THE BEST SAUCE.—Finally, we conclude by remarking that the unnatural and injurious indulgence in condiments, and especially the acrids, as mustard, pepper, &c., should be abandoned by all who value health and long life. Salt and vinegar, in small quantities, are admissible; but the safest and best general rule, in reference to the whole class of condiments, may be thus expressed—*the less, the better.* And this rule should be regarded in spite of the cravings of an artificial taste, or the rebellious movings of a miseducated stomach. Firmness and perseverance will overcome these temporary difficulties; and then will we find that our food is sweet and palatable without any stimulating and health-destroying seasonings—then will our taste be delicate and discriminating—and then will we be prepared to relish that most pleasant and healthful of all sauces—a *real natural* appetite.

TIMES OF EATING.—All the acts of our bodies, voluntary and involuntary, are greatly under the in-

fluence of habit. Hence it is desirable to have certain regular hours for eating, so that the stomach may be aided in its important duties, both by the stimulus of the food, and the periodical habit. The proper time for eating is when the previous meal has passed through all the stages of digestion, and entered into the circulation; and when, after an interval of rest, the wants of the system are indicated by a natural desire for food. If our habits are right, this will be a safe and unerring guide, and healthy people should never eat unless they have this natural prompting. A natural appetite will, as a general rule, recur about every six hours; but it is much influenced by the nature of our diet, the state of the mind, the amount of exercise, &c. Three meals a day, then, at intervals of six hours, may be taken as a general rule; and if the habits are as they should be, the machinery of life will work harmoniously by this rule. But should the appetite fail, *wait for it;* for there is always more danger of making the intervals between the meals too short than too long.

BREAKFAST AND FLUIDS.—A BAD BREATH.—Breakfast may be a substantial repast; and more fluids are allowable at this meal, on account of the waste sustained by perspiration during the night. Dr. Paris very truly remarks, that there is "a certain acrimony and rankness in all our secretions at that time; the breath has frequently a peculiar taint in the morning, which is not perceptible at subsequent periods of the day." This indicates the necessity for some bland diluting drink; and hot-water tea or chocolate will

answer every purpose, without the evils and dangers attendant on the use of "store tea" and coffee.

Drinking early in the Morning.—But we think there is a still better way; and that is, to blunt the acrid secretions, remove the taint, and supply the waste, by a draught of pure, cold water, not at breakfast, but on first rising out of bed in the morning. Hydropathic drenchings have already been noticed in condemnation, but these excesses are no argument against the judicious and moderate use of water early in the morning. There are some with whom cold drinks, even in moderation, would not agree so well: this is particularly the case with those of feeble vital powers, in whom the generation of animal heat is deficient.

Dinner.—This meal should be taken about the middle of the day, and may be solid and substantial; but, as one of our friends expressed it, this meal is generally too *gorge*-ous: a remark applicable in other cases, as we shall see presently.

Heavy Suppers.—Supper should be taken about dark, and, when the nights are short, about sun-down. This will allow time for the digestion of the repast, before retiring to rest. The stomach should have rest at night, as well as the other parts of the body: it is an outrageous imposition on this organ, to put it to hard work just before we go to bed. Heavy suppers distend the stomach, impede respiration, oppress the brain, cause disturbed sleep, horrid dreams, nightmare, and in many instances sudden death. There can be no doubt that most persons "found dead in

bed" die of hearty suppers. If then you would enjoy quiet, refreshing sleep for the body, while dreams of peace lull the spirit,—if you would have a breath like the

"Fragrant infancy of opening flowers"—

if you would avoid disease and sudden death, shun heavy suppers! This meal should consist mostly of toasted bread, wafers, biscuit (plain and unbolted), a small quantity of fresh butter, with milk or water, or hot-water tea, for drink. Children should be allowed very little, if any, fluid, for reasons that will readily suggest themselves.

Quantity of Food.

NOT DETERMINED ACCORDING TO GULLIVER.—To prescribe food by measure and weight, except in some specific cases, would be as absurd as the attempt of Gulliver's tailors to fit every one on abstract mathematical principles *without* measurement. It is obvious that the quantity, as well as the quality of our food, should be regulated by the constitution, climate, habits of life, &c. But where one eats too little, there are ten thousand who eat excessively.

EFFECTS OF OVER-EATING.—Excessive indulgence in the pleasures of the table has hurried more people to the grave than war, pestilence, famine, and alcohol combined! War may ravage a country for a brief period, but many years of peace and prosperity will succeed; a pestilence may waste cities, or even provinces, but after all it touches but a fraction of the

human race; famine is unknown in many lands, and the gaunt form of starving Want is seldom or never seen in this happy country of overflowing abundance; the use of alcohol is confined to a class comparatively small—most women and children, and many men, drink not the burning fluid. In contrast with this, behold the work of over-eating! Its ravages are ceaseless; from year to year, it pursues its work of destruction, without pause or interruption; it wastes not only cities and provinces, but rioting throughout the whole broad world, it spreads disease and death among all classes, ages, sexes, and conditions—maidens and matrons—infants and children—men, young and old—the feeble and the robust, are swept indiscriminately into the grave by this fell destroyer. And this over-eating, combined with the exciting stimulating nature of our food, often inflames that thirst which can be quenched only by the stronger fire of spirituous drinks. Thus is over-eating often justly chargeable with the evils of intoxication. And that intemperance of all kinds—in eating and drinking alike—invites the pestilence that "walketh in darkness, and wasteth at noonday," needs no proof.

Too many Dishes.—After over-eating, the greatest error in our dietetic habits is too great variety and complication in our dishes. Look at the heterogeneous compounds that constitute our modern entertainments, even our "plain family dinners." Here we have meats of all kinds, cooked in every imaginable un-

wholesome manner, and served up with an endless list of stuffings, seasonings, and garnishments; with these, we have pastries and confectioneries, fruits and sauces, tea and coffee, hot drinks and cold drinks, sweet drinks and sour drinks, drinks freezing and drinks burning; in short, we have a medley of incompatibles that bids defiance even to the subtle analysis of the vital chemistry of the stomach. With such habits as these, is it strange that people get sick? is it strange that they die? is it not more strange that they live as long as they do, when the system is subjected day by day to such outrages? And many more *would* die, did not nature manage to relieve herself by vomiting, or in some other way. Our food should be plain and simple; it should have sufficient variety to prevent loathing and disgust, but each meal should consist of but few dishes. *This is a law that cannot be violated with impunity.*

CHAPTER VI.

OF TEMPERATURE.

How we are warmed.—Our bodies are warmed by natural and artificial means. The natural supply of animal heat is furnished by those vital and chemical changes which occur throughout the system, and more particularly by the union of carbon and oxygen through the lungs. This natural supply of heat is proportioned to the activity of the organic functions, the health of the body, and the density of the air breathed. This is the most desirable source of heat; and we should endeavor, by obedience to the laws of health, to keep the body in such a state of vigor that it may *keep up its own fires*.

Artificial Heat.—Warming Rooms.—When rooms are heated by a fire, special care should be taken not to raise the temperature too high. Too much heat relaxes the skin and enfeebles the nervous system. The body is thus rendered extremely sensitive to cold, so much so, that persons who are in the habit of living in warm rooms, on going out, will shiver and feel exceedingly uncomfortable, in a temperature quite agreeable to others of different habits. But more than mere comfort is involved. People cannot remain shut up all the time; and the great difference of temperature on going out is the fruitful source of colds, pleurisies, rheumatisms, neuralgias, &c., &c. Rooms should be just warm enough to be

comfortable, and no warmer; and it is safer for them to be a little too cold than too warm. The body, in health, can bear without injury almost any degree of uniform cold short of freezing; and as our sensitiveness to cold depends very much on habit, we should accustom ourselves to as low a temperature as circumstances will permit.

Dangers of neglecting the above Rule.—By neglecting this rule, thousands have been hurried to the grave; for, next to impure air, and improper food and drinks, we know of no greater evils than those to which we are exposed from sudden changes of temperature. It is true that we cannot always shield ourselves from sudden changes of weather, but we can *prepare* ourselves to resist such influences by studiously avoiding over-heated rooms. Perhaps there is scarcely a woman who will read these pages who has not suffered in person or in family from passing from over-heated places of public resort into the open air. And could the grave speak, what an awful, what an impressive warning would it give on this subject! But it should be remembered, and never forgotten, that our *own houses* may be so highly heated as to expose us to all the dangers of public places, so far as sudden changes are concerned. In proof of this it is only necessary to point to many good domestic women, who never attend crowded places of public resort, and who, yet, have acquired such morbid sensitiveness by keeping too close, that they cannot go out, even on a mild spring or summer day, without shivering or "catching cold," if nothing worse happens to them.

"Bad Colds."—It is a prevalent opinion of the

people that "bad colds" are caused by the coldness of the weather. Indeed, a great many seem to think that a cold, and especially one of these "bad colds," is an actual tangible entity, a solid substance, or something of that kind, which creeps into the system, and nestles in the throat or lungs, from whence it is to be expelled by drowning it out with "yerb teas," or by the more violent action of some strong medicine. If a physician tells such people as these that any ache or pain is a cold, and that something must be given "to work off the cold," the explanation is entirely satisfactory, and the man of pills is set down as "a wondrous knowing doctor." Now it is hardly necessary to say that all this is very absurd. Cold being only the absence of heat, has no *positive* existence; and all medication founded on the idea of a literal expulsion of cold is worse than foolishness. A common cold is an irritation or inflammation of the mucous membrane lining the air-passages (as the nose, throat, bronchial tubes, &c.), and this inflammation is generally caused by a sudden change of weather, and more particularly, by a change from *cold to warm*. Constant and uniform cold is not near so likely to affect the body injuriously as sudden changes of weather. The best way to avoid colds is to preserve the strength of the system by shunning all relaxing debilitating habits, and particularly excessive artificial heat, either by warm rooms or by clothing unnecessarily heavy. Gross feeding is a frequent cause of colds.

Climate.—Southern Women.—It has just been seen that there is more danger in heat and in sudden changes than in uniform cold. The human system

can better resist the influence of cold than that of great vicissitudes, or the relaxing enervating effects of a temperature uniformly high. Hence, the climate of our Southern States, with its long hot summers and short variable winters, is very trying to the constitution; while Southern women are exposed to dangers peculiar to themselves. In addition to the unfriendly influence of climate, they have to contend with difficulties originating in their physical organization. These sexual peculiarities, which are common to all women, consist in a certain softness and laxness of all the fibres and tissues of the body, and an excitable, impressible state of the nervous system. Now, a hot climate produces exactly these effects, and hence, Southern women are subjected to the combined and powerful action of a natural weakness and susceptibility, aggravated by the direct and concurrent effects of climate. This state of things, conjoined with a total disregard of the laws of health in many instances, will readily explain that early decay of Southern beauty which is a subject of common remark. That the women of the South are beautiful, no one will deny. When an artist would paint an ideal beauty, he goes to a Southern or Oriental clime for his original; he surrounds his picture with the warm, genial, expansive atmosphere of the "sunny South;" and, dipping his pencil in the glowing sunlight, he tints those lips

> "And cheeks before whose bloom the rose
> Its blushing treasure-house might close."

But, alas! in actual life, how soon does this full-blown, blushing Southern beauty fade away! How

soon are the roses of health supplanted by the pale lilies of disease! How soon is the clear transparent complexion changed to a dingy yellow! How soon do the full round form and smooth features wither and shrink under the combined influence of climate, constitutional weakness, and bad habits of living! Of all women, *Southern* women should best know and obey the laws of health. By a strict observance of these laws, unfriendly influences may be counteracted—beauty may be retained and health preserved. And our object, in depicting the dangers to which Southern women are exposed, has been to induce them to provide against those dangers. We do sincerely hope that nothing that has been said will tend to produce discouragement, under the mistaken notion that these evils are natural, and therefore unavoidable, and should be submitted to with supine resignation.

The laws of *health* are natural laws, and by obedience to them health may be *naturally* and confidently expected. Will not our fair countrywomen conform, then, to those laws? Will they not strive to retain the greatest of all earthly blessings, beauty and health? In the women of the South we feel a peculiar interest; we have been reared among them; we have rejoiced in their smiles, and sympathized in their sorrows; in sickness, and in that dark hour of distress, known only to their sex, we have been called to minister to them; and often, too often, have we been able to trace the sufferings that so deeply moved our heart to violations of the laws of health. Will not our sisters return then from their wanderings, and,

by obedience to physiological as well as moral law, become patterns worthy of imitation in *all* things?

CHAPTER VII.

OF EXERCISE.

NECESSARY.—CONSEQUENCES OF NEGLECT.—Bodily exercise is absolutely essential to the proper performance of all those vital functions, on which health and even life itself depend. Respiration, circulation, and digestion, though they are involuntary, yet their full and perfect performance is greatly dependent on our voluntary movements. Neglect of exercise weakens and disorders the stomach, and thus all healthful supplies are cut off; it reduces the capacity of the chest, and thus the blood is not properly vitalized; it prevents free circulation in the minute vessels, and thus assimilation and all the vital changes effected in the capillaries are suspended, or imperfectly performed; the muscles wither and lose their strength; the blood-vessels become solid cords, and cease to convey the vital fluid; the brain is torpid; the nerves are unstrung; the breathing is feeble; the stomach is sluggish; and universal derangement of the whole animal economy ensues, ending in stagnation or cessation of motion, which is only another name for *death* itself. Life is motion, constant, ceaseless motion.

Exercise promotes all the vital movements, and stands in direct antagonism to disease, and that torpor which merges

> "In the deep stillness of that dreamless state
> Of sleep that knows no waking joys again."

Every hygienic precept as to air, food, drink, clothing, &c., &c., may be diligently observed, and yet, if the one thing needful—*exercise*, be neglected, neither body nor mind can attain its full and perfect development. With correct habits in every other respect, it is true, life may be maintained for a time, but it will be a dull, monotonous, vegetative existence, "a waste of wearisome hours, as tedious as a twice-told tale."

How Girls are raised.—While boys are allowed that freedom from restraint so necessary to their physical development, girls, through the influence of false notions of gentility, *femininity*, or something of that kind, are hampered and restrained in their movements, their natural playfulness is repressed, and consequently, they are stinted and dwarfed in body and mind. This process of education, or rather of destruction, is commenced soon after the unfortunate little feminine emerges from the nursery-room. No time is lost in impressing her young mind with the great idea that is to govern her whole after-life—that *she is not a boy*, and not even a *child*, but a "little woman"—that she must be prim, demure, and cautious in all her movements, "like mamma"—that to run and romp is "unladylike," and to kick up her heels an indelible reproach on her embryo womanhood.

Boarding-Schools for Young Ladies.—And

when she gets a little older, when the line of sexuality is to be still more strongly drawn by sending her to a "boarding-school for young ladies," it is then that an absurd, unnatural, and health-destroying system is more rigidly enforced, until this miniature-woman "finishes her education;" and generally about this time her health is also *finished*. We cannot dwell on all the evils to which girls (young ladies we should have said) are exposed in literary institutions, such as impure air, improper food, excessive mental application, &c. These things, combined with want of exercise, are still destroying multitudes, notwithstanding all that has been said and written of late years on physical education. Professors annually make some eloquent allusions to the subject, in their circulars and addresses, and the people respond "all right;" but then, the prevalent notions as to the true character and mission of woman are so deeply rooted and so radically wrong, that it is impossible to make a practical application of truths that are theoretically admitted, without cavil. The great difficulty in this matter is a misconception of the true character of woman. She is regarded more as a tender exotic, or a beautiful plaything to amuse the idle hours of man, than as a "*help-meet*," as one designed by God to stand by his side, and to cheer and *support* him in all the conflicts of life. Hence, a certain degree of delicacy and feebleness of body are considered essential elements in woman, and among the most attractive of her charms; as if a feeble, over-sensitive, and attenuated body must necessarily indicate purity and refinement of mind; or as if the most perfect and robust physical

development could not co-exist with all that is beautiful and lovely in both the moral and physical constitution of woman! What deep perversity of taste is that which prefers a pale, delicate, artificial, unnatural *caricature* of a woman, to a full-blown, full-grown, rosy-cheeked, bright-eyed, *natural* woman; such as the great Creator placed in the garden of Eden, such as he designed to be the *companion*, the *equal*, and the *helper* of man! Women reared up in accordance with such false notions, "are as little fitted for encountering the toils or fulfilling the duties of life, as are the plants of a hot-house for being transferred to the open borders;" and until all these follies are banished from society, so that the precepts of hygiene can be put in practice at home and at school, we cannot hope for the physical regeneration of our race; for how *can* poor, puny, sickly, skeleton women be the mothers of strong, healthy children? How *can* the stream be pure, when the fountain is corrupted?

Exercise among the Fashionable.—The Hope of our Country.—We have just seen how the majority of girls educated according to the notions of "modern society" are ruined in health, by the time they leave school; but should one possess sufficient natural vigor of constitution to resist the destructive influences to which she has been subjected, the work of death is generally completed when she "enters society." She then doffs short dresses and pantalettes, which are exchanged for long skirts, that are anything but favorable to free muscular movements. She is now denied the little liberty she had in her girlish days; and the small amount of exercise

allowed her by the fashions of society, is far from being the best for the promotion of health and vigor. Exercise on foot is considered "ungenteel," and is taken either not at all, or only when the weather and everything else are perfectly favorable; and then this exercise, as it is *called*, is a mere listless stroll for a short distance, and is unworthy the name of exercise, in comparison with those full, free, natural, unrestrained movements which bring all the muscles into play, expand the lungs, quicken the circulation, drive the blood to the toe and finger ends, arouse the brain, invigorate the digestive organs, and reanimate all the vital powers. These candidates for fashionable honors (!) instead of employing themselves in some useful occupation that would give healthful exercise to both mind and body, spend their days in lounging on sofas, or in making fashionable carriage calls, while their mental food consists in the idle gossip and the trifling inanities of fashionable life, or in some over-wrought story of sickly sentimentalism. And are these the hope of our country? Are these the mothers of a future generation? If so, our prospects are gloomy indeed. If so, the term of human life, already so frightfully abbreviated, must grow shorter and shorter, until the race becomes extinct. But, thank God, these are only a fraction of the human family, confined mostly to the "higher circles" of city life. In the country we have a large reserve of *Nature's Noblewomen*, blooming, healthy, unsophisticated maidens, who know nothing of the destructive follies of upper-tendom, or, knowing, disregard them, because they are at war with common sense, subver-

sive of morals, restrictive of natural liberty, and ruinous to health. We do not pretend to say that all country girls are everything that they should be; but in their observance of the laws of health generally, and particularly in the matter of exercise, they are far in advance of the fashionable devotees of city life; and it is to the country we most mainly look for the salvation of our race from physical, as well as moral degeneracy. Will not the countrywomen of America awake, then, to their high destiny? Will they not study, obey, and preach the gospel* of health, until the tide of fashionable folly is turned back, which is sweeping off so many in our cities, and threatening to spread disease and death throughout the land? Will they not listen to the unerring counsels of Nature in preference to the senseless requisitions of Fashion? Then will they be the worthy mothers of a noble healthy race—then will they achieve a victory over Disease and Death more glorious in its effects on the human family than the brightest achievements of all the sages and heroes of ancient or modern times.

MANNER OF EXERCISING.—Exercise should be of such a nature as to bring all the muscles into action. If this cannot be done by any single movement, the exercises should be varied so as to accomplish this end. *Walking*, when actively performed, is an excellent exercise for the muscles of the lower extremities. And if the arms be placed behind the back, and the shoulders be thrown backward, the chest may be

* We speak reverently—gospel means glad-tidings; and what earthly thing is better than health?

expanded while engaged in this exercise. For the more special means of exercising the muscles of the chest, we refer to the chapter on "Air." But in addition to the recommendations there made, we would suggest a bowling-alley for young ladies. This would be a most excellent, healthful, and lady-like exercise for both mind and body, combining mental recreation with the action of the muscles of the chest, abdomen, spine, arms, and legs. *Jumping the rope* is another good exercise, which brings not only the legs, but the arms into requisition. If young ladies were a little more tomboyish now-a-days, and would indulge freely in this and other school-girl exercises, their health and happiness would be much promoted, while they would lose nothing in the estimation of sensible people. *Dancing*, if it could be practiced in the *daytime*, and in the *open air*, would be unobjectionable; but not better than walking or running, and especially when the dancing is performed in the stiff, languid, unnatural style required by fashion. *Singing and reading aloud* are excellent methods of cultivating the voice organs, and of expanding the chest, provided the lungs are supplied with an abundance of pure air. But most exercises, when engaged in for the *sake of exercise*, are likely to become irksome and to be "voted a bore:" exercise, then, should be combined with some useful occupation that will employ both brain and muscles. If young ladies would sweep the house, dust the furniture, work in the garden, spin, weave, and do many things pertaining to good housewifery, they would lose nothing in true dignity, while they would greatly promote health, and be a much more

desirable acquisition to those with whom they may be associated in after life. It is very unfortunate that the domestic employments which brought health and happiness to the households of our mothers, are considered menial and beneath the dignity of the daughters of this generation. This is all wrong: labor is honorable in all, both men and women; it is in accordance with the laws of our being, and obedience in this respect brings its own sweet reward of virtue, health, and happiness, while disobedience will most assuredly be followed by the pains and penalties annexed to violated law. Rebellion against the law of labor and the wasteful extravagances which characterize the women of this age, are the reasons why young men "cannot afford to marry;" and thus do they fall a prey to those evil associations which cause them to deride the virtue of women, while many of the latter are doomed to lonely maidenhood, or else to marry a man in advanced life, who has accumulated sufficient means to "furnish an establishment;" but who has lost the vigor and freshness of his youth, and who can never appreciate womanly worth as he should. *Carriage-riding* is a common, and with many an all-sufficient mode of exercising; but this is merely passive, requiring no muscular effort except what is necessary to keep the body erect. Riding in a carriage will do very well for invalids who are incapable of any exertion, and it is a good means of "airing," but it should never be considered a good and sufficient exercise. Yet how many thousands of women are there, whose sum total of exercise consists in a carriage-ride over a smooth road, two or three times

a week, or perhaps once a week on Sunday! Is it strange that such as these should be delicate and nervous? is it strange that they fall into a "decline?"—that they pine in melancholy and become a burden to themselves and families, fretting in gloomy discontent while surrounded by wealth and all the externals of happiness? *Riding on horseback* is preferable to carriage exercise, and is considered to be particularly appropriate in cases of weak digestive organs; but we are disposed to think that this mode of exercise has been rather over-rated by N. P. Willis and others; but still, as it has some advantages, and as Fashion gives it her sanction, we trust that women will avail themselves of it as often as possible.

Time of Exercising.—As a general rule, exercise should not be taken just before, or just after eating. The best time for active exercise is early in the morning before breakfast, or between breakfast and dinner. But it should be distinctly remembered that a sufficient interval should be allowed between exercising and eating, to allow the body to quiet down to its ordinary condition: *the stomach should never be filled while the body is fatigued:* and yet what habit is more common? To two of the above rules there are exceptions that may be mentioned. One of the rules given is that active exercise should not be taken soon after eating. But there are some cases of morbid sensibility and inflammation of the stomach, in which there seems to be a concentration of excitement on this organ: in such cases as these, exercise after eating draws off the excess of blood and nervous influence from the stomach, and acts beneficially. The exception to exer-

cising before breakfast applies more particularly to the inhabitants of chill-and-fever districts. When the stomach is empty, the system is more likely to be affected by malaria, and we are convinced both from theory and observation, that people who are exposed to malaria or marsh air, should never go out in the morning before eating.

Extent and Objects of Exercise.—The great objects of exercise should be to reinvigorate the body, and to work off the worn-out matters in the system. But if exercise be carried to excess, the surplusage is not only thrown off, but also other elements that are necessary to the growth of the body. Therefore, exercise should not be excessive and over-fatiguing: it should be prolonged and moderate, rather than short and laborious, and should be stopped short of actual fatigue. The amount of exercise necessary, depends greatly on the quantity of food consumed; and as muscular exercise "draws off" from the brain, literary persons should carefully guard against "over-doing the thing," and should live very light, at the same time recruiting the brain by an *abundance of sleep*. There is much more danger of literary persons exercising too little than too much, yet the following quotation from Dr. Hall may be useful and suggestive to some over-zealous reformers. Speaking of himself, Dr. Hall says: "When he has an article or a book to write in a limited time, he does not exercise at all; he goes to bed sooner, gets up later, and diminishes the amount of food one-third, and is ready to write as early in the morning as there is natural light to see with perfect ease. The rapidity and

readiness with which the brain and fingers work is amazing, as compared with full eating, stimulating drinks, with forced exercise and night study."*

* "Health and Disease," p. 98.

CHAPTER VIII.

OF SLEEP.

WHAT IS SLEEP?—It is not necessary to go into an argument to prove that sleep is indispensable to health, when almost every one has felt the distressing sensations arising from loss of rest. Sleep is the cessation of all the functions that connect us with the external world; and when sleep is profound, the functions of the brain and all the phenomena of mind are also suspended. So that dreaming, in which the brain is partially awake, is an evidence that the rest is imperfect. Persons who live right seldom dream.

TIME FOR SLEEP.—FASHIONABLE PARTIES.—

> "This dead of night, this silent hour of darkness,
> Nature for rest ordain'd and soft repose."

All Nature conspires in proclaiming this truth so beautifully expressed. When night spreads her sable curtain, the din of business is hushed; the lower animals, obedient to the signal, retire to their "grassy couch;" a refreshing coolness pervades the air, a dreamy stillness rests upon the earth, all, all, inviting

to repose. How strange then that human beings should be deaf to this eloquent language! How strange that they should pervert the order of nature, by converting day into night, and night into day?—And yet it is so. With multitudes, night is not a season of rest for invigorating the mental and bodily powers, but a time for soul-and-body-destroying dissipations and "teeming mischiefs." This is the time for fashionable parties, where, in addition to want of rest, the system is poisoned by impure air, and oppressed by excessive and improper eating and drinking; while the mind and all the moral feelings are worked up into a feverish state of excitement which reacts with terrible effect on the poor, abused, and over-burdened physical frame. Can any one believe for a moment that the laws of nature can be thus violated with impunity? As soon might a feeble woman expect to have the foaming cataract of Niagara poured on her head without injury! No; as surely as God exists, so surely will every violation of physical law be visited with its legitimate punishment. These laws are written in our frame by the hand of the Almighty himself; and they are as fixed, and as immutable in their nature and consequences, as the Author of them.

One of these laws is that *night was ordained for sleep;* and let not those who avoid scenes of excitement and dissipation, and who yet keep late hours, flatter themselves that they incur no risk. In one respect at least, they subvert the order of nature, and must suffer accordingly. Day sleep will not answer as a substitute for night sleep. Circumstances may sometimes render it necessary to make up in the day for unavoidable

loss of rest; yet this necessity should, as far as possible, be avoided. The rule is—"*Early to bed and early to rise,*" &c.

How long should we Sleep?—The amount of sleep necessary will vary according to age and habits of life, and probably according to sex. Children require more sleep than grown persons. It is a common opinion that women need more sleep than men, and this is not unreasonable, when we take into consideration the greater delicacy of woman. Those who lead an active laborious life, of course require more sleep than those who live differently. No precise rule of universal applicability can be given, then; the one just mentioned—"Early to bed and early to rise"—is a safe guide for all; for there is more danger of sleeping too little than too much, and we cannot go far wrong, if we follow the dictates of nature, and sleep in the night, and the *night only.* Many people, when engaged in some particular task, imagine that they gain greatly by stealing the hours which should be devoted to repose: this is a great mistake; by taking the accustomed amount of sleep, the mind and body are reinvigorated, the health is preserved, and the work is better, if not more speedily done. Too much sleep produces torpor and imbecility of mind, and debility of body; and therefore all day sleep should, as a general rule, be excluded. Yet a *siesta,* or after-dinner nap, in the long sultry days of summer, is certainly very pleasant, and, in our opinion, as healthful as pleasant, provided the nap is not longer than one hour, and is not taken immediately after a hearty meal. To avoid sleeping too long, it would be best

to take this nap sitting up, leaning the head on a table as suggested by Dr. Hall.

Beds, Fires, &c.—Considerations of economy have banished feather-beds from many public-houses; and it would be well if the more important consideration of health would induce people to forego the luxury of soft feather-beds entirely. They are non-conductors of electricity, and therefore interfere with the electric currents of the body; and besides this, they are a fit reservoir for the poisonous and contagious emanations from the bodies of previous occupants; and they also unduly heat the body, thus producing an enervating effect. They should therefore be excluded by all who value health more than a soft bed; and their places should be supplied by mattresses made of straw, hair, or moss, or, what is better than either, *cotton*. Cotton-beds are sufficiently warm, and persons who become accustomed to them, will find them far more comfortable than to be buried in feathers. As to the ventilation of sleeping-rooms, we have already spoken sufficiently. As a general rule, fires should not be left burning in sleeping-rooms on retiring at night: where the room is damp, it may be advisable to have a fire kindled before going to bed, but it should be extinguished on retiring.

Position.—Night-Caps.—Dreams of Bliss.—The position of the body during sleep is worthy of attention. When the head is much higher than the shoulders it tends to produce deformity, and interferes with free breathing. The shoulders, then, should be on the same plane with the head, and both should be but slightly elevated. Night caps, if used at all,

should be very thin: if it is necessary to use anything to keep the hair back, it would be best to wear a netted or lace cap. And finally we would remark, if our fair readers will obey the rules contained in this chapter, and follow the other precepts of hygiene, they may be assured of deep and quiet sleep, undisturbed by frightful dreams; for if they dream at all, it will be such rosy blissful dreams, as the Angel of Health delights to send to the couch of maiden purity—such as the soft whisperings that light the smile of dreaming infancy.

CHAPTER IX.

OF DRESS.

In Dress, consult Health and Comfort first—Ornament next.

Dress necessary.—Its Abuses.—The human body possessing no natural covering like that of most of the lower animals, clothing seems to be necessary to some extent, to shield us from the rays of the sun, and to retain the heat of our bodies. But those who are conversant with Bible history know that the first attempt at dress had its origin in the depravity of human nature, consequent on the fall of man from his pristine purity and innocency. It is equally true that the amount of clothing required depends very much on habit; for one who is accustomed to wearing thin and light clothing will feel comfortable, while others

of different habits will shiver with cold, even when clad in cloaks, shawls, and flannel under-garments. It is also highly probable that virtue and purity have not in any wise been promoted by the concealments of dress. And when we take these things into consideration, together with the boundless extravagances and follies of dress, and the numberless diseases and deaths that have ensued therefrom, we may be ready to come to the conclusion, that this human device has been a greater curse than a blessing to mankind. But the abuse of a thing is no legitimate argument against its proper use; and, as God sanctioned the use of clothing by making "coats of skin" for Adam and Eve,* it would be worse than idle to advocate the abolition of dress under existing circumstances.

THE LAW OF DRESS.—The great law of dress, to which everything should be made subservient, has already been announced—*Health and comfort first,—ornament next.* The dress should be plain, neat, clean, loose, and rather light than heavy. It should be plain and neat, because these are the elements of true beauty; and because God clothed our first parents in simple skins, thus showing the great design of dress to be utility, and not ornament. The dress should be clean, because it is demanded by decency and good taste; it should be loose and light, so as to avoid all oppression and restraint, so that every muscle may have the most perfect freedom of motion, while mind and body are equally at ease.

BONNETS.—LOW DRESSES.—TIGHT DRESSES.—

* Genesis, iii. 21.

Pointed Waists, &c.—The slightest review of the fashions of the day will convince every one, that they, with very few exceptions, stand directly opposed to health and comfort; and that the latter have been sacrificed through false notions of the beautiful, or through a blind subservience to the decrees of the fickle goddess. This is more particularly true of the dress of women, for their apparel is chosen more for ornament than for health, comfort, economy, or utility. In proof of this it is only necessary to mention those airy things of lace, straw, hair, and ribbons, *called bonnets*. And those gossamer materials, that constitute a large part of the dress of women, and which afford about as much protection as cobwebs, are no better. Such flimsy *ornaments* (we cannot call them clothing) have no service in them, and they are no protection against the piercing blasts of winter. One important law of dress is, that uniformity should be observed, and all great and sudden changes avoided. But here is a young lady who generally has the upper part of her person covered; but now she is about to attend a ball or evening party, and Fashion decrees that she must wear a "low neck and short sleeves:" her arms and neck are therefore entirely bare, or they have nothing over them except some gauzy, web-like tissue, which gives no protection, and which leaves her snowy breast the ready spoil of hungry eyes. And then when the body is debilitated and relaxed, from breathing a heated and vitiated air for hours, and from loss of rest, and when it is reeking with perspiration, she exposes herself to the cold and frosty night air! Is it at all strange that such gross violations of the

laws of health as this should be followed by disease and death? This unequal temperature, this exposure of parts usually covered, unbalances the circulation, and is the fruitful source of "bad colds," consumptions, rheumatisms, &c., &c. And those who thus expose themselves *must* suffer the consequences. But there is another still greater evil than this half-dressing, and that is tight dressing. We have already seen how yielding and compressible the ribs are. Compression of the chest by tight dress-bodies, or in any other way, must then seriously diminish the breathing capacity of the lungs, and prevent those changes in the blood which are necessary to purify it and fit it for its important offices in the animal economy. The dress-bodies worn in the present day interfere with the breathing about as much as corsets: they are too long, too closely fitting, and they have too much whalebone about them. These bodies thus splinted up are fastened with unyielding hooks and eyes, and the chest is as much compressed as if bound with the strongest cords.

But these tight and long-pointed dress-bodies not only compress the lungs; they also press the stomach, liver, and bowels downward, thus causing dyspepsia, liver complaint, and costiveness, while the womb is forced downwards, causing that very common and troublesome disorder, "falling of the womb." But the evil stops not here: the muscles of the back and chest are partially paralyzed from this compression, and therefore, when they are released from their bondage, they are incapable of sustaining the body erect, and it falls forward, causing spinal curva-

ture and "round shoulders." We have, then, as the *direct* result of compression, the following train of disorders: Respiration is impeded; the blood is imperfectly vitalized, and as a consequence all the secretions and excretions of the body are deranged; the breathing is hurried; the heart is excited; there is palpitation of this organ, with pains in the breast. The abdominal organs share in the disorder of those of the chest; the stomach, liver, and womb are displaced, and thus we have falling of the womb and dyspepsia, with its thousand untold and indescribable symptoms, as sick stomach, deranged bowels, nervousness, low spirits, &c., &c. The brain, the great fountain of vitality and intellectuality, also participates in the general derangement, and congestion or rush of blood to the head ensues, as is manifested by giddiness, throbbing, headache, trembling, &c. Now if to these *direct* effects of impeded respiration, the aggravations that necessarily ensue from spinal curvature be added, we have a picture of disease and suffering that may well startle the most thoughtless. And this picture is not overdrawn, for the originals may be seen, alas! in every part of our country.

Reasons for these Tight Bodies.—Only two plausible reasons can be adduced to explain this absurd and health-destroying fashion. One of these is the mistaken idea that it renders the person more beautiful, and the other is to obtain mechanical aid for enfeebled muscles, and thus to secure a "good carriage." But both these designs will either fail entirely of accomplishment, or only partial and tem-

porary success will be obtained, at the expense of ease, of health, and even life itself. For no one of good taste can admire an artificial, contracted waist. And while we would not insinuate that the main object of the dress of women should be to excite the admiration of men, we trust that our fair readers will excuse us for reminding them that the full and graceful rotundity of Nature is much more agreeable to our sex than the wasp-waists and artificial constrictions of Fashion; for, to speak plainly, men generally regard all such attempts with secret aversion and disgust; while with many those feelings are mingled with sorrow, in view of the dreadful consequences that must ensue from these vain and futile efforts to improve on Nature's handiwork. A good carriage, or what is esteemed as such, may possibly be obtained by artificial support to the muscles of the chest; but let us for a moment trace the consequences of success. Here then is a young lady, or a girl (all girls are young ladies now-a-days); she has been reared amid the refinements, enervations, and constraints of "modern society;" she has been closely confined within doors, excluded from the light and air; she has drunk warm drinks, and fed on crude, indigestible food; she has slept on feather-beds, and kept late hours; in short, she has violated every law of health, until her physical frame is so enfeebled that she is wholly incapable of any continuous muscular effort. And now she is about to "enter society," and a good carriage is an indispensable passport to favor. The head must be held as erect as that of a militia captain; the shoulders must be kept back; the body must incline neither to

the right nor the left, but must sit, stand, and move according to the rules prescribed by the dancing-master. Now, does any one believe that such unfortunate victims as we have described, who may be found all over the land, in town and country, are equal to the task imposed upon them? It is an established physiological fact that the muscles are incapable of continued action, but that contraction and relaxation must alternate. How, then, can these feeble and trembling bodies accomplish what would be impossible even for a giant? What is the remedy? Can ingenuity overcome a physical impossibility? Yes, even this may be done for a time, by artificial support; and as a good carriage must be secured at all hazards, the muscles are corded, and splinted, and braced; and thus, the end is attained *without muscular effort.* A happy idea, truly! Mother and daughter are both equally delighted; one because she is relieved from the labor of *trying* to do what she cannot; and the other because the lovely daughter can now retain the desired position, and no thanks to perverse dame Nature. And thus is the body made to conform to the stiff, languid, unnatural, constrained, and mechanical movements which are considered essential to a good carriage. And what follows? The muscles of the chest become still more feeble, and even paralyzed, from inaction, in accordance with another physiological law which requires that muscles shall have exercise as well as rest. Thus do the muscles become incapable of keeping the body erect, and the spine bends forward, and the unfortunate object of so much maternal solicitude becomes "hump-shouldered" as

well as diseased; and thus are blighted all the fond anticipations of the attainment of beauty and grace!

How to acquire a good Carriage.—In view of these facts, then, we sincerely hope that health and life will no longer be sacrificed to false ideas of the beautiful; for

"Nature when unadorned 's adorned the most;"

and perfect health, beauty, and grace can be obtained only by leaving the body free and unrestrained. If our readers would secure that desirable grace, a good carriage, they must live naturally and unartificially—they must let Nature do her own perfect work without the interference of the dressmaker, or dancing-master; they must have an abundance of fresh air, wholesome food, a plenty of sleep, and above *all*, a plenty of exercise, *with the most perfect freedom of every muscle.* A girl thus raised might appear a little hoidenish, and even a little tomboyish, according to modern notions; but such a girl could not be ungraceful to one who looked with the right kind of eyes at things.

Thin Shoes.—How to protect the Feet, &c.—Another great error in the dress of women is the custom of wearing thin paper-soled shoes. The circulation in the feet, legs, and other parts distant from the heart is naturally more affected by cold than those parts nearer the heart. The circulation in those parts being more feeble than in others, special care should be taken to keep the feet and hands warm. But the shoes generally worn by women are a very inadequate protection against wet and cold, and hence, the circulation is interrupted, and the blood which

should circulate through the feet is thrown on the vital internal organs, often causing the most serious and fatal diseases. This interference with the circulation is also increased by the tightness of the shoes, which causes them to compress the blood-vessels, while the same thing gives rise to corns and bunions, which render walking so painful as to prevent that exercise so essential to health. Shoes should be sufficiently thick to protect the feet from wet and cold, and they should be loose enough to allow a free circulation. India rubber shoes are objectionable because they prevent evaporation, and keep the feet too damp from perspiration. They should only be worn occasionally as over-shoes. Thick cork or leather soles afford the best protection, all things considered. For habitually cold feet, the best of all remedies is to dip them in cold water every night and then rub them well afterwards. Corns may be permanently cured by soaking them well in warm water, trimming them closely with a sharp knife, and then placing over them one or two sealing-wafers. This is to be followed by soft shoes that will not cramp the feet, and if these shoes be continued, the corns will never return. The *legs* should be protected in winter by drawers, in addition to the stockings. As a general rule, cotton stockings are better for health than yarn. Garters, by preventing the free flow of the blood through the veins, interfere with the circulation, and sometimes cause the veins to become enlarged and knotty; therefore, if anything is used to keep the stockings up, it should be something very elastic and yielding.

Hoop-Skirts.—Long Dresses.—Until the intro-

duction of hoop-skirts, women suffered greatly from the weight and heat of the number of under-garments that were found necessary to give sufficient fullness to the dress. This excess of clothing hung on to the hips and lower part of the abdomen is well calculated to cause "falling of the womb" by the mere weight; and at the same time, the excessive heat causes relaxation, which makes the womb much more easy to displace, and which is a frequent cause of "whites." When this state of things is combined with long pointed waists and corsets, or bodies which are as tight as corsets, no wonder that the above diseases are so common; for the womb could hardly resist the influence of a heavy dragging weight hung on to it below, while, at the same time, crowded down by the stomach, liver, &c., from above.

In the matter of hoop-skirts, then, we are glad to find fashion, for once, on the side of health and comfort. This fashion renders it unnecessary to resort to so many under-skirts to make the dress sufficiently full. And even admitting that the number of skirts is not diminished, the downward dragging weight is obviated, to a great extent, by the resisting hoops which sustain them. This fashion can well be tolerated, when the *widest* expansion cannot be injurious to health: and it is much to be desired that this expansion should extend *upward* until the bodies of dresses become a little more ample. The very long dresses of the present day are objectionable. They are cumbersome, uncleanly, and wastefully extravagant. They prevent freedom of motion in walking; they gather the dirt from the roads and streets as they

drag their beautiful lengths along; and they cannot possibly last. In view of all these things, then, and others that might be mentioned, our verdict is: Let the skirts of dresses be sufficiently *Bloomerized* to swing clear of the ground, if no more.

UNDER-GARMENTS.—COOLING OFF.—Flannel and silk under-garments are much worn, and are strongly advocated by many physicians, but in the large majority of cases we think they might well be dispensed with; for they render the skin highly susceptible to cold, and the danger of removing them is so great in a variable climate like ours, that, in our opinion, more "colds" have been caused than prevented, and more lives lost than saved, by their use. Those who wear their flannels next the skin all the year, and who have smarted under them in warm weather, and those who, to avoid this evil, have "changed" too early, will equally agree that there is a better way. This will be pointed out hereafter. We conclude then by remarking that flannel next the skin should be avoided, except under peculiar circumstances of disease, great debility, or unusual exposure. When worn at all it should either be worn all the year round, or the weather should be warm and well settled, before it is thrown off.

Under this head we may properly say a few words about cooling off. Persons should never sit or lie down in a current of air, or remove any of the clothing, after ceasing from active exercise. Instead of lightening the dress, it should be increased under these circumstances, by throwing on a cloak, cape, or shawl, even in summer. Attention to this simple rule would save

many lives annually, for the most dangerous and fatal forms of disease are caused by cooling off too rapidly.

Management of the Hair.—The hair should never be twisted, knotted, or pulled contrary to its natural direction, if you would avoid baldness and head-ache. The scalp should be washed and rubbed frequently with cold water, which will generally be sufficient to keep the hair from falling out, and to keep it smooth and glossy, without the use of grease and pomatums, which should never be used except as a temporary expedient in some rare cases. The water should be well rubbed in around the roots of the hair, with the ends of the fingers, avoiding wetting the body of the hair, as far as possible. Should the scalp be obstinately dry and harsh, it may be safely washed with a weak cold solution of green tea, or with spirits of Castile soap containing a few grains of tannin, as prescribed by Dr. Hall. In cases of this kind the following may be applied: alcohol eight parts, water eight parts, spirits of hartshorn one part. Cologne water may also be used; but perhaps the best plan under these circumstances, and especially if there be an accumulation of dandruff, is to have the head thoroughly *shampooed*, after the fashion of the barbers, repeating the operation at intervals, until the scalp is perfectly clean, and is stimulated into vigorous healthful action. The daily use of the fine comb is also excellent in these cases.

Origin of the Fashions.—We would not cast a shadow of reproach on the virtue of American women, but we must say that many of the fashions adopted by them, originated with less virtuous women, and

were intended to render them more attractive in the eyes of lewd men. These fashions are imported from France mostly, and they are adopted by our women without a moment's thought as to their original design. There can be but little doubt that the explanation above given will account for the introduction of low-necked dresses, short sleeves, pads, &c. Now it is too bad for us to be thus led by the nose, in matters of dress, by the most licentious people on the face of the earth perhaps, and the women of America should show their independence and good sense by sternly resisting all fashions that outrage decency, pander to vice, or jeopardize health.

Rules to be hung over every Lady's Looking-glass.

1st. Consult health and comfort *first*—ornament next.

2d. Let the dress be so fitted and arranged that body and mind will be equally at ease.

3d. Let the dress be *uniform:* avoid all sudden changes.

4th. Let the dress be rather light than heavy.

5th. Never expose a part of the body usually covered.

6th. Put on a shawl or cloak after exercise, &c.

7th. Keep the feet, legs, and arms well clad.

8th. Never adopt any fashion that requires any improper exposure of any part of your person.

CHAPTER X.

OF BATHING.

BATHING NECESSARY.—As we shall have much to say on the hygienic and medicinal use of water, it may be proper to premise that we do not belong to the hydro-maniacal class who seem to think that the human skin was made *only to be washed.* Indeed, we cannot say that bathing would be necessary at all, if all our habits were made to conform to the laws of our organism; if the passions were duly controlled and properly directed; if diet, exercise, clothing, temperature, air, sleep, amusements, &c., were *just as they should be,* bathing would still be desirable as a pleasurable indulgence, and as a measure of cleanliness, but it would not be essential to the preservation of health. And as ladies are less subject to contamination than the "rest of mankind," they would seldom find it necessary to bathe for the purpose of purification. But they, if possible, are even more unphysiological in their habits than men; and they are peculiarly exposed, "as society now exists," to all those influences which result in torpor of the capillary system of vessels, and congestion or engorgement of the internal organs. Bathing may be regarded then as absolutely indispensable; for, while it may not be competent to counteract all the evils consequent on numberless violations of the laws of life, there is

nothing so direct and effectual in the removal of those internal congestions, which may be considered the sum total of the multiform maladies to which *civilized* flesh is heir. Every house then should have a bathing apartment; but in the absence of all other conveniences, a quart of water and a towel can be procured at all places, and a general "wash down" or bath of some kind should be taken frequently.

MANNER IN WHICH WATER ACTS.—As a knowledge of the physiological action of water is essential to its judicious use, either as a preventive or curative agent, we invite special attention to the following explanations on this point. The application of *cold* water to the surface is followed by two *distinct and opposite* effects. The first, or *direct* effect, is that of a *sedative* —that is, it abstracts heat and depresses the vital powers. This temporary depression is followed by *reaction*, which is the second, or *indirect* effect resulting from the use of water of a lower temperature than the body. In its *indirect reactive* action, it is stimulant or excitant. We have, then, the *direct sedative*, and the *indirect excitant* effects of cold water. Let us now see how each of these effects is manifested. When the water comes in contact with the skin, the first result is a vivid shock to the whole nervous system. This is manifested by shivering, great chillness, and involuntary contraction of the muscles, sometimes amounting to a "cramp." Simultaneous with this shock, there is repulsion, or driving back of the fluids to the internal organs. This shows itself in a sensible diminution of the temperature of the surface, and by paleness and shrinking of the skin, fullness of the

head, "goose bumps," &c. When *reaction* ensues, there is a strong determination to the minute vessels of the skin, and perhaps to the same system of vessels (capillary) in every part of the body. This is manifested by an increase of temperature, by the expansion of the skin, by a return of its color, by the disappearance of all feelings of oppression, and by the substitution of an indescribably delightful glow, a buoyancy and elasticity, which seem to give new life and energy to the whole system, mental and bodily. The *degree* of reaction after the cold bath is, in general, proportioned to the *coldness of the water;* to the *suddenness and force of the immersion;* to the *vigor of the circulation in general, and more particularly that of the surface;* to the *muscular movements* IN the bath; to the *friction and exercise* AFTER the bath; and finally, within certain limits, to the *period of stay* in it.

THE DIFFERENT KINDS OF BATHS.—Baths are commonly divided into hot, warm, cold, and tepid; but as the terms hot and cold are entirely relative, what is hot or warm to one person being cool or cold to another, according to the temperature of the body, we propose to divide all baths into two classes, *plus* and *minus*. To the first class, belong all baths *above the actual or relative* temperature of the body—all baths which act primarily as stimulants or excitants. The second class includes all baths *below* the actual or relative temperature—all which abstract heat, and exert a sedative influence. To the first class, belongs what is commonly called the hot bath: and the warm bath properly belongs to the second, though writers have confounded the hot and warm bath, and frequent-

ly prescribe the latter as if it were a *stimulant* instead of a *sedative*. It is hardly necessary to say that the tepid, cool, and cold baths of course belong to the *minus* or sedative division. The warm bath is a most valuable medicinal agent, but its hygienic uses are much more restricted than those of the cold bath. Indeed, it should but seldom be resorted to as a preventive of sickness, except by very feeble persons, and as a *preparatory* measure.

Temperature and Time of Bathing.—The particular kind of bath, the temperature, &c., should be regulated by the condition and convenience of the bathers. Water may be used hygienically, by *general* and *partial ablutions*, by *plunging*, by *sponging*, and by *showering*. When persons are in vigorous health, and have the necessary facilities, the cold plunge or shower bath is highly conducive both to health and comfort The fact is, ladies, if you have never experienced the indescribably delightful sensations resulting from the reactive glow of the cold shower or plunge bath, you have missed one of the greatest enjoyments of life. This is an excitement far more pleasant than that produced by snuff, opium, wine, or any other stimulant; and even the last sensation novel is nothing to compare to it; while the best of all is, instead of enervating and destroying, it invigorates and preserves: it allays the tumult of passion, and "soothes a troubled breast;" it promotes cheerfulness, beautifies the complexion, strengthens the muscles, quiets the nerves, purifies the blood, expands the superficial vessels of the skin, wakes up the dormant energies of the whole system, relieves internal oppression, and

conduces in every way to health of body and mind, and is therefore one of the very best securities for a "green old age." Go, then, blooming maidens and mothers, wash and be—*healthy;* plunge fearlessly into lake and stream; or let the crystal drops of health-giving water play freely upon you, and you will soon be willing to incur the trouble and inconvenience for the pure enjoyment, to say nothing of health.

Swimming is one of the most agreeable and healthful accompaniments of bathing, and ladies should acquire this very desirable art; for apart from the advantages mentioned, it may be the means of saving them from the dangers to which they are so often exposed in this reckless traveling age. Of course it is understood that the above is intended only for vigorous persons; those that are more feeble, and children under a year old, should use a tepid bath at first, gradually reducing the temperature as the system becomes accustomed to the water. By pursuing this course, very feeble persons, and delicate children, may take some form of cold bath daily, not only without injury but with great benefit; and every man, woman, and child in the land should bathe or wash at least once a week, in water either warm, tepid, or cold, according to circumstances; but as a general rule, the colder the better. Yet while it is true, that cold water is the best as a hygienic agent, we must repeat our caution against its use without due regard to the attendant circumstances of each individual case; and we consider this caution the more necessary because it is no uncommon thing for feeble and sensitive persons who have never been accustomed to bathing, to begin with

the cold shower-bath, or cold affusion. Those who act thus unwisely, often experience ill effects, and they very improperly come to the conclusion that water is entirely unsuited to their case, and perhaps abandon it for ever, and never cease to decry one of the best, if not the very best, of all health-preservers. *Sponging* the upper portion of the body in cold water is one of the very best preventives of coughs and colds, and is far preferable to the use of silks and flannels next the skin. We would advise those who have "weak lungs," to wet the chest, neck, and arms every morning in cold water, following this application by active friction with a coarse towel or hair glove. Very delicate persons should use the water tepid or warm at first. If these directions were judiciously adhered to, we think that silk and flannel under-garments might well be dispensed with in the large majority of cases in which they are now used; for the cold water is not only a better protection against atmospheric vicissitudes, but it is more pleasant and more *safe*, whatever hydrophobic people may think of the latter position. The dangers of flannels, &c., have already been adverted to. The *time* of bathing should be duly regarded. No general, or even extensive partial bath should be taken immediately after eating, or when the body is fatigued or exhausted from exertion, or any other depressing influence. There should be an interval of two or three hours between the meal and the bath, and even a longer time than this, if the digestion is slow and difficult. Early in the morning is the best and most convenient time for bathing, and the vital reactive powers are generally stronger at this time from

the reinvigorating effects of "tired Nature's sweet restorer."

MEANS OF PROCURING REACTION.—In the use of the cold bath, the most essential thing is to obtain full and vigorous *reaction;* for to this, its hygienic virtues are mainly due, and without it, more or less injury must inevitably ensue. For securing reaction, *exercise* is worthy of the first consideration. This should precede and follow the bath whenever it is practicable. For, while fatigue is to be carefully guarded against, sufficient exercise to cause a glow and even perspiration will insure vigorous reaction with all its attendant benefits. It is a very prevalent error that it is highly injurious to check perspiration by the application of cold water to the surface; but so far is this from being true that it is best to exercise to the perspiring point, as a preparatory step; provided, always, *that fatigue and exhaustion are not induced.*

But exercise *after* the bath is even more important; and it should always be used to as great an extent as the nature of the case will allow. Exercise *in* the bath, is also very beneficial, and hence, the advantages of swimming, rubbing with one's own hands, &c. It has been seen that the reaction within certain limits, is proportioned to the coldness of the water, and the period of stay in it: that is, the colder the water, and the longer the stay, the greater the reaction. But as the reactive powers can be known only by experiment, the most prudent course would be to test the vital resistance, by reducing the temperature of the bath gradually, and by remaining in it but a short time at

first; and it *should be distinctly remembered that the water is too cold, or the immersion too long, when headache, dullness, and chilliness remain for any length of time after a cold bath.* To remove these effects, and to promote reaction when they are not present, *active friction* is second only to exercise, and it should always be used when a strong determination to the surface is desired—when the reactive powers are naturally feeble—or when debility or any other circumstance prevents exercise. Friction is best performed with a coarse towel, a flesh brush, or hair glove, or piece of grass cloth; and the hand itself is excellent when passed rapidly over the body; indeed, in many cases it seems to be preferable to anything else, on account of its warmth, its ready adaptation to the inequalities of the body, and perhaps, to an electric or magnetic influence.

Objections to Bathing.—It has been seen that we are a strong advocate for bathing; and notwithstanding our disclaimer, some may still consider us a little hydromaniacal. We cannot undertake to answer all the objections that have been urged against frequent bathing. The most plausible one is that bathing washes away the oil that lubricates the skin; and one late writer compares our skins to the scales of fishes. All that we have to say to this is that there is little or no analogy between the human skin and that of fishes, and if it were possible to remove the oil, so that we could not bend about, it might be readily resupplied artificially. When such arguments as these are used, we can but think that the objectors are hard run by hydropaths.

CHAPTER XI.

OF THE EXCRETIONS.

NATURE OF THE EXCRETIONS.—The excretions are those evacuations from the lungs, liver, skin, bowels, and kidneys, by which worn-out, useless, and injurious matters are thrown off from the body. The proper action of the excretory organs mentioned, is absolutely essential to health, and even existence itself; for the suspension of any one of them, for any length of time, is followed by the most violent forms of disease, resulting, without speedy relief, in death. The excretions are divided into *voluntary* and *involuntary*. Over the excretory functions of the lungs, liver, and skin, the will has no direct control. Yet the proper performance of their functions may be secured by due attention to all the hygienic agents, already passed in review, and those yet to be noticed. It is only necessary, then, to mention the symptoms by which disorder of these organs is manifested. When the lungs fail to perform their functions, the skin is pale and dull, the expression is lifeless, and numberless diseases ensue as a consequence of poisoned blood which has not been purified, &c. If the liver fails to throw off its bile, the latter is mingled with the current of circulation, staining the skin and eyes yellow, and causing headache, dullness of spirits, dyspepsia, and many other symptoms. If the skin does not perform its functions properly, the blood is poisoned, and the

lungs, brain, heart, liver, bowels, and in short, all the vital organs are affected, as is manifested by coughs, inflammation of the lungs, gripings, diarrhœas, excessive discharges from, and irritation of the kidneys, &c., &c. How vitally important, then, that these safety-valves of the system should be kept in a proper condition for the performance of their offices!

THE EVACUATIONS FROM THE KIDNEYS AND BOWELS.—The kidneys and bowels free the body from those grosser matters which cannot be retained, even for a short time, without the most serious consequences. And as the discharges from these organs are controlled by the will, we may say that health, so far as the evacuation of the bladder and bowels is concerned, depends entirely on our own conduct. It is true that our health in other respects, is largely dependent on ourselves, but it is more particularly so with regard to the voluntary evacuations. Constipation, with its long train of disagreeable disorders, such as fetid breath, bad taste in the mouth, dyspepsia, piles, colic, &c., &c., is often produced in women by neglecting the solicitations of nature—by failing to comply with the desire to evacuate the bowels. By neglecting to discharge the bladder at the proper time, women are exposed to some of the most dangerous forms of womb disorder, as we shall see hereafter.

The most effectual method of avoiding the numerous diseases arising from torpid bowels, is, *to have a regular hour to attend to them, and to be punctual to this hour, under all circumstances.* We know that women labor under peculiar difficulties in complying with this injunction, but neither false modesty, nor *anything else*,

should be allowed to conflict with a rule so vitally important to health. For health *cannot* be enjoyed without a regular evacuation of the bowels, and this regularity cannot be obtained, except through the influence of habit. When no habit of this kind is established, when the natural desire is unheeded, it passes off—the bowels become accustomed to the accumulation within them, their nervous sensibility is blunted; they lose their tone from over-distention; their peristaltic downward movement ceases; and in short, habitual costiveness, with an innumerable host of maladies, is the result. In fact, there is scarcely a disease in the whole long and dark catalogue, that may not originate directly or indirectly from this source. Are we not right, then, in insisting that this thing should be attended to under *all* circumstances?

Means of Regulating the Bowels, &c.—In the regulation of the bowels, proper *diet* is no less important than habitual attention to the calls of nature. The food should not be too concentrated, but a due relation between nutritiveness and bulk should be preserved. It is necessary to the action of the bowels that our food should consist of a considerable proportion of the coarser materials, so as to gently excite and distend them, and thus promote their downward movement. But the dietetic habits of a great many people, and particularly of women, are directly opposed to this plain and obvious necessity. Among many examples of this, we will only notice the extensive use of fine flour. This, from its glutinous nature, and from the absence of the bran, or husks of the wheat, is highly constipating; yet there are thousands of

women who live almost exclusively on biscuits made of fine—yea, of superfine flour; and with these they drink a concentrated extract of green tea! No wonder that such as these should suffer from costive bowels, nervousness, and a thousand and one other disorders which render life a burden. For the food is not sufficiently bulky to distend the stomach and bowels, and not coarse enough to excite them to action, and thus contraction ensues, while this difficulty is still farther increased by the astringent effect of the tea, and by its torpifying narcotic action on the brain and whole nervous system. Many other bad habits resulting in constipation, such as want of exercise, the abuse of purgatives, &c., might be noticed, but these will be reserved for future consideration; we therefore conclude with the following rules for the regulation of the excretions:—

1st. *Let the lungs have an abundance of pure air, to assist them in vitalizing the blood.*

2d. *Let the skin be kept clean and soft by frequent bathing.*

3d. *For the liver and the other excretory organs mentioned, follow the rules on dress and diet already given.*

4th. *Evacuate the bladder when this necessity is indicated by desire.*

5th. *Establish a regular habit of attending to the bowels, and avoid concentrated food, and particularly fine flour: also eschew the habitual use of purgatives, and astringent drinks.*

CHAPTER XII.

MENTAL HYGIENE, ETC.

CONNECTION BETWEEN MIND AND BODY.—Though much has been written by poets, philosophers, and physicians, on the mysterious bond of union between mind and body, yet, even by these, the effects resulting from this union are not fully appreciated; while, by the great mass of people, those things are entirely overlooked. What is the body when compared with the soul? Truly, it is a wonderful piece of machinery, worthy of the great Architect who fashioned it. But then it is only a frame-work of bones, filled in and covered with muscles and skin —a house in which WE—the immortal SOUL, and the vital animating SPIRIT—live. The eyes are the windows out of which we look; the ear, nose, tongue, and skin are our intelligencers and sentinels placed on the outposts of our spiritual domain; the muscles are our carriers; and the nerves are our telegraphic messengers by which we communicate with the external world, and *our own world within.* The *soul,* then, with all its faculties and affections, is the *life,* the *essence,* the *moving-power,* and the *governor* of the body. Is it strange, then, that the physical frame should vibrate to every touch of the spiritual chords which move it? Is it strange that the passions and emotions of the mind should powerfully influence the body? And is it not passing strange that this mighty controlling power should be so much overlooked in our efforts to prevent and cure physical disease?

Influence of the Mind in Woman.

The controlling influence of the mind is a subject that should be studied by all, but it commends itself with peculiar force to woman: her physical organization is naturally more delicate than that of man, and this natural delicacy has been much increased by the enervating habits of civilized life—her feelings are naturally acute and impressible, and this inherent mental condition has been nursed into a morbid sensitiveness under the unnatural social influences by which she is surrounded. Hence her feelings are easily excited, and they act with terrible energy on her feeble and sensitive body, and the latter reacting on the former, such a commotion is often produced that the frail tabernacle in which she dwells is prostrated and destroyed. Other considerations, involving the health and happiness of their posterity, might be adduced for the purpose of attracting the attention of women to this subject, but let this suffice for the present: with this single remark—Of all human beings, women are under the greatest, the most sacred, obligation to obey all the laws of health, and *especially the laws of mental hygiene;* the incentives to this are to be found in the *love* of life; and in that *deep, abiding, soul-absorbing* MATERNAL love, which is sweeter than life, and stronger than death.

THE DIFFERENT PASSIONS, AND THE MANNER IN WHICH THEY ACT.—It would require a volume to pass in review all the mental faculties and moral feelings, and to show how they affect the health; we shall therefore confine ourselves to the stronger passions,

and more particularly those which are most likely to sway the breast of woman. The passions may be divided into two great classes—the *elevating* and the *depressing*. Among the former are *love, veneration, faith,* and *hope. Envy, jealousy, fear, grief, remorse,* and other dark, malevolent passions, belong to the latter class.

The Ruling Passion.

Love, in its various manifestations, is the ruling passion of the world, and its native home seems to be in the warm, tender heart of woman; of whom it has been truly said, in contrast with man—

> "Man's love is of man's life a thing apart—
> 'Tis woman's whole existence."

When this mighty passion is duly controlled; when it is fixed on a worthy object; when it finds exercise in that benevolence and philanthropy which prompts us to "do good to all as we have opportunity;" when it shows itself in veneration to the great Creator, and that religious devotion which produces obedience to his commandments—it is the most holy, inspiring, elevating, life-giving feeling that can possibly animate the human heart. But the highest and purest enjoyments that this earth offers to woman are found in her domestic and conjugal relations. Here that deep, untold, and unfathomable love which lives alone in the heart of a *mother,* finds delightful and healthful employment in nurturing and training her offspring: here, when the silken cord of love binds her willing heart to one who is worthy of the treasure committed to his keeping, she feels that *this* is

"The best, the brightest boon the heart e'er knew—
Of all life's sweets, the very sweetest yet!"

But ah! should "love's young dream" be blighted—should this love to hatred turn, should all her treasure on a die be thrown, and—*lost! who* can tell the pangs and tortures to which she is exposed?

Dangers to which Women are Exposed.

As society now exists, women, and especially the young, are peculiarly liable to the dangers at which we have hinted. Their young affections, like the ivy, naturally seek for some object around which they may twine; and as these natural feelings are stimulated into a forced and precocious development, by reading works of fiction, attending balls, plays, &c., while the judgment and the higher reasoning faculties are neglected, there is very great danger that they will fix themselves on some unworthy object, thus bringing misery and ruin for life, should the misguided attachment unfortunately result in marriage. But, admitting the object to be worthy, young ladies are yet subject to another great danger—unrequited love. Society has decreed that a woman shall not tell her love, that she would disgrace her sex by giving any intimation of her feelings until she is wooed; and thus is she compelled to hide within her breast a secret passion, to

"Let concealment, like a worm i' th' bud,
Feed on her damask cheek."

A great pity it is that women should be subjected to such evils and disadvantages; but as this state of things cannot well be remedied, young women should

guard their hearts carefully against the entrance of a passion which may wreck their whole constitution, physical, mental, and moral, should it be unreciprocated, or placed on an unworthy object.

Works of Fiction, Theatres, &c.

Allusion has been made to works of fiction, theatres, balls, &c.; but we cannot thus slightly pass these things without giving a solemn emphatic warning against them. 'Tis true that all fictitious reading is not injurious alike; some imaginative works are founded in nature, are true to life, and they inculcate, in a beautiful and forcible manner, a sound moral. But while this is true of a comparatively small portion, the great mass give false and exaggerated views of life; they cultivate the ideal at the expense of the actual; they nurse the emotional to the injury of the intellectual; and they cause a premature development of those feelings which should be repressed and controlled, until the higher mental faculties can keep them within the bounds of health and good morals. These remarks apply more particularly to the extravagant romances which compose the great mass of the "light literature" of the day. In these works, love at first sight, elopements, and all kinds of follies are displayed in a manner well calculated to mislead the young mind, and to destroy that mental and moral equilibrium which is absolutely essential to health and happiness. And often, too often, good and evil are confounded, virtue and chastity are slyly or openly ridiculed and reproached, vice and libertinism are gilded and rewarded, while purity and constancy are

debased by making them yield to seductions which are represented as irresistible, and therefore justifiable. The above remarks apply, with slight modification, to the theatre and the ball-room, and therefore we need not enlarge on these. We can only say to our readers, as they value moral purity, as they value peace of mind, as they value health and happiness—shun all these things!

Consolations of Religion.

And should misfortune still overtake them, through the operation of causes over which they have no control, they will then have the sweet consciousness of having done all that they *could;* and then, with the unwavering faith and the undying hope which God gives to the trusting and the dutiful, they may enjoy that peace which "the world can neither give nor take away"—that calm sunshine—that sweet serenity of mind which no cloud can obscure, and no storm disturb. *This,* THIS is the antidote to envy, jealousy, fear, grief, remorse, and all those blighting withering passions which, like a simoom, dry the fountains of life, and breed disease and death. *This* will give healthful and vigorous exercise to all the higher passions of our nature, while the baser will be so controlled that all may act harmoniously for the accomplishment of the great purposes for which they were designed. *This,* in short, will give that *self-control* which is absolutely essential to our mental, moral, and physical health—that self-control which is necessary to our own happiness, and the happiness of those with whom we stand connected—that self-control

which is the highest duty of all, and the most *sacred obligation* of *mothers*, to whom are committed the spiritual and the physical, the temporal and eternal interests of their offspring.

Influence of the depressing Passions.

When we speak of the depressing passions as drying up and poisoning the fountains of life, we deal in no idle fancies, for this is the actual effect of anger, grief, fear, &c. Violent anger or grief, or any strong depressing mental influence, will arrest the secretion of the gastric juice, and stop digestion: fear will relax the bowels, and grief and anger suppress the milk or render it poisonous to the infant. Numberless examples of this might be adduced, but we only give one from Dr. Bedford of New York. A little child, afflicted with purging and convulsions, was brought to him, and on questioning the mother, he ascertained distinctly that the diseases of the child were caused by the mother's grief, originating in a report that her husband had been lost at sea. In view of these facts, which might be multiplied almost indefinitely, how cautious should nursing mothers be in the regulation and control of their passions! There can be no doubt that thousands of children are annually hurried to the grave through thoughtless violations of the laws of health on the part of mothers. The influence of the passions over digestion might be illustrated by examples equally striking; so manifest is this, that it did not fail to attract the notice of the great poet of nature, Shakspeare: when Wolsey was detected in his intrigues, by certain papers which fell into the hands

of the king, he is represented as handing them to the guilty cardinal and addressing him thus—

> "Read over *this;* and, after, *this;* and then
> To breakfast, with what appetite you have."

Elevating Passions—Amusements—Religion, &c.

Such are some of the physical effects of the depressing passions. Faith (which has much more to do with the heart than the brain), hope, cheerfulness, and all their smiling train, promote digestion, favor the free circulation of the blood, diffuse and equalize the nervous influence, bring quiet refreshing sleep, improve the complexion, make all the secretions pure and healthy, and in short, build up, sustain, and protect the whole mental and physical organization. These passions or feelings should be cultivated, then, as a duty—a duty which has the promise of the "*life that now is, and of that which is to come.*" For the purpose of promoting cheerfulness, with all its attendant benefits, innocent *amusements* are commendable and desirable. We have no sympathy with those who condemn all amusements as alike sinful, and who render religion repulsive by their austere manners and long faces. Cheerfulness as naturally results from *true* religion as light from the sun; and while this religion forbids foolish levity and sinful amusements, it gives that sweet serenity of mind which imparts the highest zest to the lawful enjoyments of life. Through false religious prejudices, but much more, perhaps, through the eager desire for wealth and fame, amusement and relaxation are too much neglected by the American people. This

is more particularly true of men, with whom we have nothing to do at present, only so far as they stand connected with those for whom we write. If mothers and wives would secure their own happiness, then, and that of their families, let them use their sweet persuasive powers to lure their husbands from the feverish haunts of business, to the quiet fire-side, where the cares of life may be forgotten in the relaxations and enjoyments of the home circle: If they would enjoy health and happiness themselves—if they would make

> "*Home* the spot of earth supremely blest,
> A dearer, sweeter spot than all the rest,"—

let them shun the haunts of fashionable folly and dissipation—let them cultivate those *domestic* virtues, which are the source of the highest, the purest enjoyments this world can give.

PART THIRD.

DISEASES PECULIAR TO WOMEN, OR DISORDERS OF HER PHYSICAL LIFE.

THE PRIME REMEDIES IN DOMESTIC PRACTICE SHOULD BE—REST, ABSTINENCE, BATHING, SECLUSION, AND ALL THOSE AGENTS THAT ARE SO EFFECTUAL IN THE PRESERVATION OF HEALTH. DRUGS SHOULD BE USED SPARINGLY: AND THE MORE ACTIVE SHOULD BUT SELDOM BE ADMINISTERED WITHOUT THE ADVICE OF A PHYSICIAN.

CHAPTER I.

OF DISEASE IN GENERAL.

WHAT IS DISEASE?—As manifest as are the *effects* of disease, it is yet very difficult to say what is its precise nature. The commonly received definition among regular physicians is that "disease is disordered action of any part of the machinery of the body;" which, being interpreted, amounts to this—disease is *disease*. This enlightens us considerably!

The Hydropaths, Eclectics, and Thomsonians seem to think that disease consists in "obstruction," or "inability of an organ to perform its functions." Some Hydropaths tell us that all diseases are curative efforts of nature:—"Disease," says one, "is the effort of the system to expel impurities." The patent-medicine, Indian, Dutch, and other nameless tribes of doctors, generally locate these impurities in the blood, a theory well adapted to popular notions, and one highly conducive to the sale of sarsaparillas, "blood pills," "renovating resolvents," "life-giving elixirs," "phœnix bitters," "universal purifiers," &c., &c. Now, in our opinion, all these definitions have some truth in them, and yet they are all wrong except the first; for the position of the regulars, that *disease is disease*, cannot be controverted. The idea that all

diseases are caused by impurities circulating through the blood, is one of the most mischievous errors that has ever cursed the world; as just intimated, it is this that sustains that mania for swallowing all kinds of drugs and patent-medicines, which seems to be one of our national characteristics. Some diseases, we might say many, doubtless originate from these impurities, but the only safe and effectual plan is to *guard against the accumulation* of those impurities, by observing the laws of health. The fact is, all theorists err in trying to make all diseases essentially the same, when there is no such identity. Disease may be an effort to expel impurities, in some cases; in other cases, it may be a remedial effort where no impurities are involved: it may consist in *deficient* action, *excessive* action, or *entire want* of action; it is sometimes curative in its tendency, and often destructive.

Causes of Disease.—The causes of disease are divided into *predisposing* and *exciting*. The predisposing cause is that which produces that peculiar condition of the system which renders it susceptible to disease. Persons may be exposed to precisely the same influences—some will contract disease, while others will escape entirely; or all may be affected—some in one way, and some in another. Several may be exposed alike to cold, and one will have inflammation of the lungs, another sore throat, another "cold in the head," another looseness of the bowels, another rheumatism or neuralgia, &c., &c. Now, the differences in these cases arise from the peculiar predispositions of each individual, one organ being weaker in

one, and another, in another. The same cause, or set of causes, may be either predisposing or exciting, according to individual susceptibility. For instance, tobacco, in those accustomed to it, *predisposes* to disease, by its action on the brain and nerves, while in those not habituated to it, the noxious weed produces the most violent symptoms of actual disease, such as sick stomach, vomiting, fluttering at the heart, fainting, and even death.

Treatment of Diseases.—Two Principles.—The various sects that compose the medical world may be divided into two classes:—the leading principle of one is "*that like cures like:*" the other acts on the principle that "*contraries cure contraries.*" To the first class belong the Homœopaths, who contend that any remedy that will produce a certain set of symptoms in a well person, will cure a disease with the same symptoms. They also act on the absurd assumption that the *smaller the dose, the greater the effect.* This system has the advantage of being the least dangerous of all, but it is so contrary to reason and common sense, that it could have originated only in a fanciful brain. All the rest of the medical world may be considered as belonging to the *contrary* or Allopathic school. For, though the Hydropaths deny the "soft impeachment," yet it is plain that they are governed by the Allopathic principle, that they so much abuse. For example, when a patient is too hot, they cool him down with water; when he is too cold, they warm him, by the reaction of cold water, or by the application of warm water; if the excitement is too low, they stimulate with water; if it is too great, they reduce

with water; if he is weak, they brace him up with water; if he has too much fluid in his blood, they draw it off through his skin by means of wet-sheet, packs, &c.; and if he has too little fluid, it is supplied through the stomach and skin. All this is exactly on the Allopathic principle, and it is reasonable and right. The inconsistency lies in loudly condemning and ridiculing a practice, and then following the same practice, in principle. But then they say these horrid Allopaths bleed, blister, and burn; but it must be borne in mind that these things are not *principles*, but *measures*, which are not an essential part of Allopathic practice, and may therefore be used or not, according to circumstances. This comparison has been instituted, because a strong effort has been made to mislead the people, and prejudice them against a principle which is sanctioned by reason, experience, and common sense; and with the single exception of the Homœopaths, it governs and guides all medical practice. The abuses of this principle recoil then on the heads of those who vent them; and the term "Allopath" belongs not more to regular physicians than others.

The Domestic Treatment of Disease.—The only safe plan for domestic practice is to make the *hygienic* or *preventive* agents, and the *simpler* medicines, the principal means of cure. Should these fail (which they will seldom do when judiciously used), a skillful physician should be sent for. In all the medical works that have been written for physicians and people, a great error has been committed in failing entirely to notice these powerful and safe agents, or

in giving them only a secondary place. In every work on the practice of medicine, and especially in every work on *domestic* practice, these agencies should have the very first place, and they should constitute the great staples of home treatment, to the exclusion of the stronger and more dangerous drugs that can be safely used only by those who have devoted a lifetime to the study of medicine.

Abuse of Medicine.—The abuse of medicine in domestic practice is an enormous evil, and a prolific source of disease and death. Besides the patent nostrums so greedily swallowed by our drug-loving and quack-ridden people, the strongest drugs are taken for every trivial and temporary derangement of health, of which most cases might be cured by a day's fast, by rest from labor, a bath, seclusion from society, or some other means equally safe. Many eat too much, knowing that it will make them sick, and with the predetermination to take medicine to remove the effects of their gluttony; they gorge themselves to-day, and take salts or oil to-morrow; they obstruct the liver by gross feeding, and then take calomel or some other mercurial; they excite a cough by wilful exposure, and then take opium to relieve it. This is sinning against the body with *malice aforethought*, and such people cannot expect to enjoy health, unless God suspends the fixed and immutable laws instituted for our government as rational creatures.

Medical Books for the People.—The drug-taking mania which may be set down among our national characteristics, is caused mainly by the free circulation of certain works on domestic medicine

among our people, and by the blood-purifying, liver-invigorating theories, and other like plausible humbugs, published in newspapers, by medical impostors. We do verily believe that most of the works on domestic medicine published in this country have done vastly more harm than good, by encouraging the extravagant and indiscriminate use of drugs among incompetent persons. In almost every household, we find certain very popular domestic medical works which prescribe calomel, opium, jalap, ipecac, tartar emetic, blisters, bleeding, and all such powerful and dangerous agents, on all occasions. Through such influences as these, infants are drugged, and well nigh purged to death, with vermifuges, whether they have worms or not; older children must have "spring physic" to remove or ward off imaginary diseases; while all classes, ages, sexes, and conditions are diligently drugged, in season and out of season, with blood-purifiers, liver-medicines, pukes, purges, sweats, &c., &c. If, then, you value health and long life, read not the plausible and seductive theories manufactured for popular use and published in newspapers and medical almanacs, neither swallow any of the unknown drugs advertised in them. Eschew in like manner, all works on domestic medicine that deal largely in the stronger drugs, calomel, opium, &c.—that freely prescribe bleeding, emetics, and cathartics, and teach that every one may be his own physician. Sooner might every woman tune her own piano, or make her own watches! The only safe books for the people are such as prescribe the simpler medicines only, unless it be in some rare cases.

WATER AS A REMEDY.—In the article on "Bathing," under the head "Manner in which water acts," the different effects of water, and more particularly of cold water, have, we trust, been sufficiently explained; and we advise our readers to turn back and read carefully what is said under that head. Water is so often prescribed in the succeeding pages, that a word of explanation may be proper on this point. It is prescribed, then, because it has such a variety of effects according to the temperature, and the manner in which it is applied, that it really has a much wider range of application than any other remedy, there being but few diseases in which it may not be used in some form; and while this is the case, *there is no remedy of the same power that is anything like as safe.* We would guard against the impression that water can do no harm, for all remedies that have sufficient power over the system to accomplish great good, are equally capable of doing harm when improperly used. Yet we feel no hesitation in saying that there is no *drug* that will at all compare with water when safety and efficacy are both considered. It is safer than strong drugs, from the fact that the principles on which it acts are plain and easily understood, while any ill effects are immediate and manifest. Persons of ordinary intelligence can see and understand the effects of water, but everything connected with drugs is involved in much mystery: all the stronger drugs are, therefore, dangerous weapons in the hands of the unskillful. Some of these, when used by a very prudent and skillful physician, may possibly be better, in some cases, than water, but we repeat that, in *home*

practice, there is nothing to equal the external and internal use of water, in safety, in efficacy, and in extent of applicability. We know that this is a "hard saying" with many, for some cannot believe that *simple water* can cure disease, while others are so under the influence of the prejudices of education, that they think it highly dangerous, and especially in the ailments of women. To such we can only say, *try* the remedy as prescribed, and you will be convinced of its advantages; and should any one attempt to terrify you by depicting the dangers of water, they can be readily silenced by a comparison of the injuries from this source with those arising from the use of calomel and other things that are daily resorted to in domestic practice. Who can count the number of chronic diseases, and broken down constitutions from this source! But we do not intend to resort to the common expedient of taking a hobby-horsical ride into popular favor on the much abused and quack-ridden Calomel. We believe that calomel is a good and useful, and in some cases an almost indispensable, remedy; but calomel, and all such things, have their place; and that is in the hands of a very cautious and skillful physician, who will not lightly resort to them, and who will closely watch their effects. Such things should be used very rarely in domestic practice, for they are far more dangerous, in the hands of the people, than water. And what if water has been abused by a set of run-mad exclusives, this is no reason why it should be rejected by regular physicians; on the contrary, it becomes their duty to teach the proper use of this remedy, in conjunc-

tion with any others that may be safely resorted to, so as to counteract the errors and dangers of quackery.

MANNER IN WHICH THE WARM BATH ACTS.—The warm bath, and all other baths, below the actual or relative temperature of the body, act as sedatives; that is, they draw off excitement and produce a soothing effect. The tepid, warm, and indeed all *minus* baths (see "Different kinds of Baths"), are appropriate in fevers and all diseases of excitement where it is necessary to reduce excessive action. Many medical books teach very erroneous doctrines on this subject, and prescribe the warm bath as though it were a dangerous stimulant, instead of a direct sedative.

CHOOSING A PHYSICIAN.—Even in these brief general remarks on disease, it would be inexcusable to omit so important a matter as choosing a physician. A physician is often chosen for his easy manners, or because he is a "good (good for nothing, perhaps) clever fellow," social in his disposition, and tells a good story; some physicians owe their success to their fluency and general knowledge; one succeeds because he says nothing, but *looks* "wondrous wise;" another, because he spouts technicalities, that no one can understand; another, because he belongs to "*our* party" in religion or politics; and another still, because he has "good success;" and we have even known doctors (we will not say physicians) to establish a considerable reputation by proclaiming their ignorance and want of "college learning." The fact is, the passports to popular favor in Medicine are almost numberless, and a volume of anecdotes of the

successful "tricks of the trade" might be readily compiled. A London medical adventurer brought himself into notice, by offering an extravagant reward for his lost dog; another accomplished the same end by having his servant to go round to all the coffee-houses and inquire for the celebrated Dr.——. The eccentric Radcliff exhibited his shrewdness when he advised those who would devote a son to physic, to send him first to a fencing-master, or a dancing-school. Alas, that such things as these should secure the confidence of the sick! When life and death hang on the *medical knowledge* of the physician, what matters it about his graceful manners, his cleverness, his sociability? of what avail is his polite literature, or his dark sayings? or who cares to what party or sect he belongs? These things are all good enough in their place, but *not* at the bedside of the sick and the dying. Here a *physician* is needed, one who can interpret the symptoms of the disease, trace them to their source, and apply the remedy. And to choose such an one—*there lies the difficulty.* General acquaintance with literature is a kind of presumptive evidence of medical knowledge, but then many are incompetent to decide as to literary attainments; and it should be remembered that an extensive cultivation of letters is incompatible with minute and thorough medical investigations —that a physician may "*know everything but medicine,*" as was once said of a distinguished London practitioner, while, on the other hand, another may know "*nothing but medicine.*" Success in practice is a very fallacious guide, for many get well *in spite of the doctor,* while others are not indebted to his remedies for

their recovery. An ignoramus, by a fortunate combination of circumstances, through the influence of friends, by intrigue, &c., may establish a considerable reputation; while a man, in every way his superior, who relies on his intrinsic merits, scorning the arts of quackery, may starve for want of patronage.

If a candidate for medical honors has the best of all kinds of sense—*good, hard, common, every-day sense*—and if to this are added some general knowledge of literature, a thorough medical education, devoted attention to his patients, and studious habits, he may, as a general rule, be trusted. On the other hand, we should hesitate to commit our lives into the hands of one destitute of these characteristics—one who deals largely in high-sounding medical terms in promiscuous crowds, and who resorts to other quackish arts to captivate the populace. After all, this thing of choosing a physician, generally considered so easy, is one of the most important and difficult things in life. Dr. Hall says, in his late work "Health and Disease:" "Choose one who has been regularly educated to his profession, who has never changed his system of practice, and commands the respect of the community where he resides." But then, you may get hold of an iron-sided old fogy, who has not read anything new on medicine for twenty years, and who thinks that all true medical science was buried with Hippocrates some five hundred years before Christ. As to the opinions of the community, it is needless to say more; we have seen what reliance is to be placed in them. The best advice that we can give on this difficult point is to choose a physician who exhibits a practical common sense turn of mind in the ordinary

affairs of life, who is attentive to his business, diligent in his studies, sober in his habits, and *who humbly prays for the Divine blessing on the means that he may use.* To such an one, pray that God may direct you in the dark hour of sickness and distress, at a time when life and death may hang on the wisdom of your choice; for much, *very much,* depends on the physician. It is a great, and often a fatal error, to suppose that all physicians educated at the same school, or who practice the same system, are alike in their practice. In such a science as Medicine, where it is impossible to prescribe any fixed rules of treatment, everything, we might say, depends on the judgment of the physician.

In addition to the qualifications mentioned, every physician who treats the diseases of women, should possess that refinement of manner, and that delicacy of feeling, which will secure the confidence and respect of his patients, and cause the most tender regard for the innate modesty of woman. The physician, in such cases, should not allow any mawkish sensibility to interfere with the necessary duties of his profession, but what is necessary, should be done as gently and as delicately as possible; and any man who will approach a woman rudely, or who will prate about the infirmities or the peculiar diseases of a female patient, is a burning reproach to an honorable profession, and unworthy that confidence and respect to which a skillful and honorable physician is so richly entitled.

CHAPTER II.

DISEASES OF EXTERNAL GENITALS.

INFLAMMATION DEFINED, &c.—The main features of inflammation are an undue rush of blood to a part, and distension of the blood-vessels. Its *symptoms* are pain, heat, redness, and swelling. Its principal *terminations* are *resolution*, or healing; *suppuration*, or the formation of matter; *ulceration*, or loss of substance; *effusion* of water, &c.; and *mortification*, or death of the part affected. This last termination is comparatively rare, and is not near so frequent as people generally suppose. Writers make many divisions of inflammation, but the only one that we shall notice in this general account is the division into *acute* and *chronic*. These terms have reference to the *degree*, and not to the *kind* of inflammation. An acute inflammation is an active violent affection, while a chronic inflammation is a slower and less violent disease. The domestic treatment of inflammation should consist, principally, in rest, low diet, avoidance of all excitement, mental and bodily, the general and local application of water of different temperatures, and the occasional use of mild purgatives. These means, which will be more particularly explained hereafter, will generally be successful, without a resort to the lancet and some other remedies, which should not often be used except by a physician. And as inflammation is often a dangerous and destructive process, the means of combating it should be well understood.

Inflammation of the Privates.*

Under this head, we will treat first of inflammation of the skin covering the lips of the privates, and then, of inflammation of the mucous membrane lining these parts. The external inflammation generally involves the skin and the cellular tissue beneath.

Symptoms.—These are heat, swelling, redness, and a throbbing pain extending to the groin, which sometimes swells and becomes very painful. The pain is much increased by motion, by the upright position, and by pressure.

Causes.—Blows, falls, or violence of any kind. It occurs most commonly during pregnancy, and after delivery, from pressure, &c.

Treatment.—Rest, and cold applications in the form of cloths wet in cold water, and frequently changed. Should matter form, which may generally be known by one point becoming softer than another, it should be discharged by making an opening with a lancet. But should there be any doubt as to the presence of matter, the opening had better not be made without the advice of a physician, as the bowels sometimes find their way down into this unusual position. But this is rare, and a resort to the lancet will seldom be necessary, if the proper treatment be used early and diligently. Should matter gather, then substitute for the cold cloths, warm ones, or a warm, soft corn mush poultice, retained by a bandage around the body and between the thighs.

* The term "Privates" is intended to embrace the greater and lesser lips, and the clitoris; all of which have been described in another place.

Inflammation of the Mucous Membrane of the External Privates.

This disease affects both women and little children, but as the general treatment is the same, no distinction will be made on this account. It has sometimes prevailed among girls as an epidemic, and has been very fatal.

CAUSES.—These are most commonly cold, want of cleanliness, and sympathetic excitement from irritation of the rectum or straight gut.

SYMPTOMS.—Itching, attended with a disagreeable smarting feeling, especially in passing water; and after awhile, a whitish or yellowish, and sometimes acrid discharge.

TREATMENT.—*Cleanliness* is the great secret in this disease. In the first stage, when the excitement is great, the parts should be frequently bathed in warm water; and a thorough washing should never be neglected after each evacuation of the bladder. When the inflammation is sufficiently subdued to bear the application of cold water, this should be substituted for the warm. And should the inflammation extend inwards, injections into the vagina should be used. These remedies, combined with rest and avoidance of all exciting causes, will generally be sufficient; but should they fail, the following may be used externally; and by injection, if necessary. Take sugar of lead a teaspoonful, put it into a half pint of water, and then add a tablespoonful of laudanum. Use warm or cold, according to the feelings. Should the disease become chronic and obstinate, inject the following: Nitrate of silver, ten grains; water, one ounce.

Itching of the Privates.

This disorder is very similar to the one last described, and is really a symptom rather than a distinct disease; but it is a symptom of sufficient importance to merit a separate consideration.

Symptoms.—Intolerable itching, attended with a burning, smarting, and disagreeable sore feeling. Through sympathy, and through the desire to rub the parts, which is almost irresistible, the sexual feeling is sometimes so much excited as to render seclusion necessary, while the unfortunate sufferer is tormented in a way that is revolting to modesty.

Causes.—The principal of these are pregnancy, want of cleanliness, and diseases of the womb.

Treatment.—Follow pretty much the course directed in the preceding affection. If the irritation is great, warm water should be used at first, and continued, if it gives more relief than cold water, which will generally be the case. A solution of borax has been recommended by the late distinguished Dr. Dewees; but water will generally be sufficient, unless the disorder is caused by disease of the womb or rectum. In these cases, the treatment must have reference mostly to the original disease, while the washing and other remedies prescribed may still be used as palliatives. The desire to scratch should be resisted if possible; the diet should be of the lightest kind, to the exclusion of all meats, tea, and coffee; all stimulating drinks should be avoided; and also everything calculated to favor the train of ideas excited by the disease. Should these remedies fail, it is highly

probable that the disorder is sympathetic of some disease of the womb or rectum, and a physician should be consulted.

Tumors of the External Privates.

Any kind of swelling is sometimes called a tumor, but this term is most commonly applied to an indolent painless swelling or "lump" enveloped in a thin membrane or cyst. *Wens* are a familiar example of this kind of tumor. Besides these, the privates are sometimes affected with oozing and warty tumors; and a very painful little teat occasionally arises at the mouth of the opening leading from the bladder. None of these affections can be managed in domestic practice, but much pain may be avoided by learning to recognise the *vascular tumor at the orifice of the urethra.*

SYMPTOMS.—Severe and constant pain at the external privates, increased to agony on motion or contact; a sense of weight and bearing down; a frequent desire to evacuate the bladder, and scalding. On a close examination, a small tumor, the size of a pea, or larger, may be seen at the orifice of the urethra, or opening from the bladder.

TREATMENT.—For this, and all the other tumors, send for a physician or surgeon.

Deformities of the Privates.

Everything under this head of course requires the attention of a physician; but some of the principal malformations will be noticed, so that unnecessary anxiety of mind may be prevented in some cases, while life may be saved in others, by the knowledge thus communicated.

UNION OF THE LIPS OF THE PRIVATES—ENLARGED CLITORIS, &c.—The lips of the privates may be united only in part, or throughout their whole length. This union may exist in girls at birth, or it may occur in older persons from inflammation, &c. When the union is complete, the flow of urine is prevented, and the assistance of a physician should be obtained without delay. Should the flow of urine not be interrupted, difficulty may still arise when the period for menstruation arrives.

Excessive development of the nymphæ or internal lips of the privates, is quite common in some countries, but as it is unattended with danger, it is only mentioned to remove any fears that may be excited by its presence. *Enlargement of the clitoris* is very rare, and need not detain us.

CHAPTER III.

FUNCTIONAL DISORDERS OF THE VAGINA AND WOMB—THE MENSTRUAL LIFE OF WOMAN.

All diseases may be divided into *functional* and *organic*. Functional diseases are those that give rise to various disturbances in the system, but which produce no manifest change in the structure of the parts affected. Organic diseases, on the contrary, are attended by various changes of structure, which will be noticed in another chapter.

Leucorrhœa or "Whites."

NATURE OF THE DISEASE.—By some writers whites is attributed to debility and relaxation of the mucous membrane of the vagina, and sometimes to a similar condition of the mucous membrane of the womb. But while this may be true in some cases, there can be no doubt that the great majority of cases of this disease originate from inflammation or irritation of the mucous membrane lining the vagina; while some cases have their origin in an inflammation of the mucous membrane lining the womb. So that this is really more an organic than a functional disease. This inflammation of the mucous membrane of the vagina and womb may be either *acute* or *chronic;* but the latter form is much the more common.

CAUSES.—These will be carefully considered, because a knowledge of the causes will suggest the means of *prevention* and *cure.* Among the numerous causes mentioned by writers, we only enumerate—a sedentary life, frequent child-bearing, reading works calculated to act on the sexual feelings, too early marriages, solitary pleasures, foot-stoves, stimulating food and drinks, want of cleanliness, exposure to cold, mental emotion, and sympathy with the rectum. Some of these causes merit a more particular consideration.

Women are most subject to this disease during their menstrual life, and there can be no doubt that the duties imposed on them as wives and mothers have very much to do with its prevalence at this period. But we are equally confident, that the exposures alluded to would not so often give rise to

this very common disorder, if women would live right and avoid the other causes mentioned. If women would avoid whites, they must abandon their present sedentary habits, and take exercise in the open air; they must pay more attention to bathing and cleanliness; they must lay aside those works, and shun those places of amusement, which tend to excite the sexual organs; they must discontinue the excessive use of highly stimulating food and drinks, and especially tea and coffee; and, in short, they must remodel all their habits. But some may be ready to say: "I would rather have the disease than make all these sacrifices." But, before you make this decision, hear the symptoms of leucorrhœa, and see to what evils you are exposing yourself.

Symptoms.—These may be divided into local and general. In the early stages, should the inflammation be of an acute or subacute character, there will be heat, soreness, itching, and burning about the privates and vagina, with a feeling as if the parts were swollen. With these symptoms there is not unfrequently pain in the back, a dragging sensation in the lower part of the belly, and in the groins and thighs. The discharge is at first small in quantity, thin, and of a whitish color, but it gradually becomes more profuse, thicker, and assumes a yellowish or greenish hue. But generally these earlier and more acute symptoms are not present, and the disorder is marked, more by its effects on the constitution, than by great pain and uneasiness in the parts affected. The discharge is sometimes sufficiently acrid to irritate the thighs and other parts with which it comes in contact, causing in-

flammation of the skin. And there are cases where a leucorrheal discharge will give rise to symptoms in husbands, that are calculated to excite the most painful suspicions involving the moral character of wives. And as no false delicacy should restrain us from disclosing a fact so important to the peace and happiness of families, we will be excused for stating in plainer terms, that husbands, by contact with their wives who have whites, may contract a disease, which may readily be mistaken for that foul and disgusting disorder arising from impure sexual intercourse. When the inflammatory symptoms above mentioned have continued an uncertain length of time; or when the disease has gradually undermined the constitution, without any prominent local symptoms; we have the following train of general and sympathetic disorders resulting from this apparently trivial whitish discharge, which has become so common in civilized life, that women consider it as natural to them, and not an evidence of disease originating in bad habits. Patients afflicted with chronic whites, besides pains in the back, and lower part of the abdomen, and in various parts of the body, suffer from depraved appetite, from sour stomach, from "stinking belch," headache, hiccough; and in short the thousand and one symptoms of dyspepsia. They are sensitive to cold, especially about the feet, while the head is unusually hot; they are troubled with palpitation of the heart and fainting fits, with pains in the breast, &c.; "the face becomes pale, the eyes hollow, and they weep without cause; they become careless, impatient, and feel a sort of languor and dejection, a sensation of

strangling or choking, and an involuntary sadness; they are apathetic, melancholy, hypochondriacal; in fine they never exhibit the happy physiognomy characteristic of the sex, and are often tormented by erotic desires, which drive them into vicious habits, and at the same time augment their languor and exhaustion." Colombat, from whom the above extract is taken, thus graphically concludes his description of the constitutional effects of whites. "When the discharge is constant, profuse, and of long standing, exhaustion and degradation of the constitution are soon found, &c.—The skin now becomes more and more discolored, the emaciation increases, the flesh becomes loose, the breasts are soft, the pulse small and frequent, and the breath fetid; the eyelids become bloated, the legs are always cold, and the whole body sometimes becomes œdematous (dropsical). The patient complains of almost continual colic, and of pains along the vertebral column (back-bone), in the loins, hips, and hypogastric region (lower abdomen). She is tormented with constant thirst; the appetite is lost; she suffers from habitual pain in the stomach, and from obstinate constipation; she is subject to nausea (sick stomach), eructations (belchings), and acid vomiting; the urine is turbid, flocculent, and in small quantity. When leucorrhœa reaches this degree of severity, the patient acquires a disgust and indifference for everything; her faculties become enfeebled; she is unfitted for reproduction, as much by her indifference as by the disgust which she inspires: finally, moral debility and settled despair, together with hec-

tic fever, exhaust the few remains of strength, after having destroyed all that lends a charm to life."

To this dark catalogue of evils may be added "falling of the womb," which frequently results from the relaxation produced by whites; and so great is this relaxation, in some cases, that the womb protrudes between the thighs, and becomes sore and ulcerated from the friction of the clothes, &c. Such is a picture of the evils to which women are exposed through the manifold violations of the laws of health, at which we have hinted.

And surely if such a picture as this, the originals of which may be seen all over the land, will not prompt women to forsake the ways of folly, the most eloquent appeal that we could make would fail to affect them.

TREATMENT.—By obedience to the laws of health, by abandoning the bad habits mentioned in the list of causes, and by strict attention to cleanliness, whites can almost invariably be prevented. And when not caused by some organic or structural disease of the womb, a cure may generally be effected by perseverance in the above course and by the use of means now to be mentioned. A great variety of remedies has been recommended by physicians for this disorder, but we have found nothing so effectual as the simple plan now to be described. In the early stage of the disease, should there be heat, pain, and other symptoms of local inflammation, inject tepid water into the vagina five or six times a day, and continue to throw up the water each time until it comes away perfectly clear. This operation is to be performed

with a common pewter or glass womb syringe while sitting over a tub or some other suitable vessel. When the excitement about the vagina and privates is subdued by these means, then substitute cold water for the warm, and use it in the same way. These cold injections, and the other means now about to be prescribed, may be used from the very beginning, if the disease has assumed a chronic form, and the local symptoms of acute inflammation are absent. In such cases, in addition to the injections, use a cold hip-bath, by sitting in water deep enough to come well up over the hips. This should be repeated two or three times a day, and the baths should be from *three* to *five minutes long*, but *not longer than five minutes*. Each bath should be followed by *active* friction or rubbing on the back, hips, and lower part of the abdomen, with a coarse towel, flesh brush, or piece of grass cloth. The skin must be rubbed each time as much as it will bear, so as to excite it and thus draw off from the diseased parts. These cold applications are to be discontinued if the "courses" should make their appearance, but pregnancy will not interfere. In addition to this local treatment, the whole skin should be kept in lively action by a general bath every day or every other day, according to circumstances. If the patient is very weak or unaccustomed to bathing, the body should at first be sponged or washed with tepid or lukewarm water, and the water should be used a little colder each time, until it is quite cold. After washing all over in this manner until the system reacts well—which may be known by the agreeable glow and the feeling of invigoration after each bath—the cold

shower bath may then be used with much benefit.* Each bath should be followed by a good *dry rubbing*, and by exercise, according to the strength. Exercise before the bath will also be very beneficial, provided it is not carried sufficiently far to cause fatigue.† The diet should be nourishing, but digestible, and everything that disorders the stomach should be left off. If the bowels be costive, the diet should consist of corn bread, corn grits, *unbolted* flour, wheat grits, sweet potatoes, with a liberal proportion of good ripe fruits, either fresh, or dried and stewed. Should anything else be necessary to regulate the bowels, have a set time to attend to this matter, and inject the bowel with a pint of cold water, just before the time for each evacuation.

The sleeping should be done on mattresses. Strict attention should be paid to ventilation, so as to have an abundance of pure fresh air, day and night.

The mind has its influence in this disease, as in all others. Colombat tells us that a lady, on seeing an only daughter about to be torn from her by a fever, "was suddenly inundated with a leucorrhœal discharge." The same effect resulted in a young girl who saw her lover killed. These cases teach us that all violent mental emotions, and especially those of a depressing nature, should, as far as possible, be avoided. The remedies above prescribed will be sufficient for most cases of whites, and for domestic use we will only recommend, in addition, simple tonics,

* If there should be anything about the patient to render the propriety of the cold bath doubtful, consult a physician.

† See chapter on "Bathing."

in some cases. Of these, the best is the muriated tincture of iron, in doses of from ten to thirty drops, three times a day. This should be added to half a glass of water, and taken through a quill, washing out the mouth well after each dose. The feet should be kept warm, but any excess of clothing about the hips should be avoided; for there can be no doubt that the custom of wearing so many underskirts has much to do with the prevalence of leucorrhœa and falling of the womb.

Absence and Suppression of the Courses.

These menstrual disorders are included, in medical books, under the head of *Amenorrhœa.*

Absent menstruation is where the menses have never made their appearance. It has been seen that the time at which the monthly discharge appears in women varies according to climate, habits, &c. A case has been related where a girl menstruated at the age of ten years; and when twelve years and a half old, she was the mother of a child! But this is a very unusual case, and the period at which menstruation should occur in this climate may be set down at from fifteen to eighteen years—fifteen in the Southern States, and a little later in the Northern. It should always be borne in mind, however, that there is no fixed and definite time for the appearance of this discharge, and that the above are given only as general rules.

Causes.—Absence of the menses may originate from absence of the ovaries or womb, in which case, of course, there will be no effort at menstruation. In

such cases as these, the sexual characteristics of women are wanting—the breasts are small and flabby, the body not so full and beautifully rounded; and not unfrequently there is a slight beard on the upper lip.

In other cases, the ovaries and womb may be present, and the secretion may take place, but the discharge may be prevented by closure of the mouth of the womb, by closure or absence of the vagina, &c. Such cases as these will give rise to violent symptoms, from distension, and will require the attention of a physician or surgeon.

Simple Absence of the Menses.

This term is intended to embrace those cases in which the courses do not appear at the proper time, and in which the delay is not caused by any of the malformations above mentioned.

Causes.—These, in general terms, are debility and congestion, or irregular distribution of blood. And these conditions are the result of sedentary habits, indolence, want of exercise, and luxurious living, among the higher classes; and among the lower, the same results are produced by excessive toil, bad air, insufficient food, and other depressing influences.

Symptoms.—In these cases, there may be an effort at menstruation every month, or there may be nothing of this kind. The menstrual effort will be marked by the following symptoms: shiverings, pain in the small of the back and the lower part of the abdomen, aching down the thighs, with a feeling of weight and fullness in the womb, privates, &c. With these local symptoms there may be pain and throbbing in the

head, pain in the side, stomach, and bowels, a choking sensation in the throat, nervousness, a feeling of great weakness, difficulty of breathing, &c., &c.

TREATMENT.—When there is no attempt at menstruation, and the usual signs of development, such as enlargement of the breasts, &c., are absent, nothing should be done with the view of exciting the womb to action. And in fact, the domestic treatment of all cases of absent menstruation, should be confined almost exclusively to the improvement of the general health. Nature, when she has a fair chance, is fully competent for her own work, without any artificial aid from "forcing" medicines; and these are generally ineffectual, and often dangerous. If the general health is pretty good, it is better to wait and see what Nature will do for herself. If there is general debility and congestion, these may be removed by pure air, exercise, bathing, nourishing diet, and right living.

Pure air has already been so much insisted on that it is unnecessary to say more in this place—only that it is *indispensable*. The exercise should be of such a nature as to arouse and invigorate the whole system, and the womb in particular.

For the accomplishment of these ends, horseback exercise is entitled to the first consideration, and if the horse trots a little rough, so much the better. The bathing should be conducted on the same general plan recommended in leucorrhœa. As soon as the system can bear the shock and react readily, the cold shower-bath should be used every morning, followed by exercise, rubbing, &c., as already prescribed. In addition to this general bath, a *hot* hip-bath should

be used every month, commencing three or four days before the periodical effort. This should be used at night, and should be continued about half an hour each time, keeping the water as hot as it can be borne, by adding fresh supplies. If there is no effort at menstruation, or nothing to fix the time when it would appear, it is better to rely on the general treatment; but still, an occasional hot hip-bath will not be likely to do harm. The bowels should be regulated by the diet prescribed in whites, and by *warm* injections. The clothing should be sufficiently warm and loose; and particular attention should be paid to keeping the feet warm. Cheerfulness should be cultivated by innocent amusements, and useful and agreeable occupations, and all depressing mental influences should be carefully guarded against. A celebrated writer recommends culture of the fine arts, the frequenting of balls, theatres, crowded assemblies; and even the reading of certain imaginative works, to those who have arrived at the marriageable age, and who are cold, apathetic, and indifferent; but this is a dangerous prescription; and cheerfulness is much better promoted by means less likely to injure the health and morals. The above plan is more particularly adapted to the *intervals between the menstrual periods*. Should there be symptoms of excitement at the monthly period, these should be met by a very low diet; or even total abstinence, and rest.

The diet should consist of corn batter-cakes, rice, milk, mush, &c.; and the patient should repose on a sofa or mattress until the pain, &c., subside. Should these means fail to procure relief, cloths wrung out

of hot water should be bound to the back and abdomen, and a warm wet-sheet pack, or warm bath, should be resorted to, and repeated according to circumstances. The "wet bandage" should be prepared by folding a large towel, or small sheet, three or four double; and it should then be applied as hot as it can be borne, and bound closely to the body by a bandage over it. The "wet-sheet pack" is used thus:—Take two or three blankets, large enough to cover the body from the chin to the feet, spread them on the bed, and then over them spread the sheet wrung out of hot water; get into this as soon as possible, and then have it tucked closely around the body; and, lastly, pack the blankets around in the same manner. If the excitement is very high, the cold wet sheet may be safely used, but as a general rule the warm sheet is preferable. Each pack may be used from a half hour to an hour and a half.

MEDICINES.—An almost endless list of remedies is prescribed in medical books; but all writers very properly place their reliance more in means calculated to restore the general health than in forcing drugs and specifics. The hygienic agents are generally all-sufficient, and those above mentioned, together with some of the simpler tonics, are the only remedies admissible in home practice. Of the tonics, iron is the best; and of the various preparations of iron, perhaps none are better than simple iron filings, anvil dust, carbonate of iron, and Griffith's Myrrh Mixture. Of the first three, as much as will lie on the point of a small case-knife may be taken, in syrup, three times a day.

Griffith's Myrrh Mixture.

Take myrrh and carbonate of potash, of each 160 grains; sulphate of iron 50 grains; water one pint. Mix and stop closely. Dose from one to two tablespoonfuls three times a day.

Purgatives, and particularly aloes, are much prescribed in menstrual disorders, but it is generally better to dispense with these in domestic practice; and the same may be said of wines, spirits, bitters, &c. The best of all tonics are air, exercise, nourishing food, and cold bathing; and the best of all laxatives are injections, and a properly regulated diet.

Among the medicines, we should not have omitted "steel dust." This is a most excellent article, and is made by melting sulphur on red-hot steel, letting the globules fall into water. It is then to be powdered in a mortar, and mixed with an equal part of powdered ginger. The dose of this is a pill the size of a pea, three times a day. Should it cause sick stomach, or act too much on the bowels, the dose should be reduced; or it should be taken only twice a day.

Absence of the Menses with Leucorrhœa.

In this form there is a periodical effort at menstruation, attended with pain in the back and abdomen, weight, fullness, &c.; but the discharge is *white* instead of *red*. Sometimes this discharge is profuse for a few days, and then diminishes in quantity; and in other cases it ceases entirely; but the former is most common.

TREATMENT.—All the means just advised for the restoration of the general health should be assiduously used. Also the hot hip-bath during the menstrual effort; and in the intervals the treatment recommended for whites will be appropriate.

Suppression or Stoppage of the Menses.

When menstruation has been established, it may be suddenly arrested, constituting *acute* suppression, or the suppression may be gradual and *chronic*. The CAUSES of acute suppression are exposure to cold, mental shock, the supervention of disease, as fever, &c., &c. The SYMPTOMS of suppression are sometimes quite violent, and sometimes but little disturbance ensues. In persons of a full habit, fever, headache, thirst, and sick stomach not unfrequently arise; and the patient may even be attacked with acute inflammation of the womb, or some of the vital organs. Dr. Churchill says, "the patient is very liable to attacks of fainting and hysteric paroxysms."

TREATMENT.—An attempt to recall the discharge should be made by the use of hot hip and foot baths, followed by warm cloths to the abdomen, as before directed. Should these fail, and should the general excitement continue, it should be subdued by the warm bath, the warm wet sheet, sponging with cool or tepid water, according to the degree of excitement; by cooling drinks, low diet, and rest. At the approach of the next period the hot hip-bath should be used as prescribed in treating of absence of the menses, and everything calculated to disturb the mental or bodily equilibrium should be carefully avoided.

CHRONIC SUPPRESSION, &c.—This may result from an acute attack, or it may arise from delicate health,

or some disease of the vital organs, as the lungs, stomach, &c.

TREATMENT.—This should be conducted on the plan recommended in absence of the menses; and should there be cough or other symptoms of serious disease, a physician should be consulted; for not unfrequently the suppression is the *effect* of some other disease, and of course cannot be relieved until the original disease is removed. It is hardly necessary to add that there is a natural stoppage of the courses during pregnancy and suckling.

IRREGULAR MENSTRUATION.—The menses, without being entirely suppressed, may be irregular in *time*, in *quality*, or *quantity*. These irregularities are caused by some derangement of the general health, and are to be treated very much on the plan prescribed in absence of the menses.

VICARIOUS MENSTRUATION.—In these cases there is a discharge of blood from the nose, lungs, stomach, bladder, nipples, or some other part of the body, which seems to take the place of the proper menstrual secretion. The *treatment* must be directed to the restoration of the functions of the womb, for which see "Absence and Suppression." Should there be bleeding from the lungs, stomach, or any vital organ, a physician should be sent for; but hot hip and foot baths, cold drinks, and rest will generally be sufficient.

Painful Menstruation.

In this form of menstrual disorder the discharge is generally slight, and attended with violent pain. This is one of the most obstinate and distressing affections

to which women are subject, and it sometimes imbitters their whole menstrual life.

CAUSES.—This disease consists in extreme sensibility of the nerves of the womb; in contraction of the neck of the womb; or in inflammation and congestion of that organ. The *exciting* causes are cold during menstruation or after delivery. And there can be no doubt that the enervation and extreme excitability caused by the luxurious indulgences of civilized life, and especially among the higher classes, strongly predispose to this disease.

SYMPTOMS.—These are, more or less pain in the back and lower part of the abdomen, and the expulsion of clots of blood; and sometimes a membranous concretion is thrown off, either entire or in shreds. The pain extends around the lower part of the abdomen, and down the thighs, and not unfrequently it is attended with violent bearing-down efforts like labor-pains. These pains, and the expulsion of a membrane, might be readily mistaken for a miscarriage. These local symptoms are sometimes accompanied by fever, headache, hot skin, various nervous and hysterical disorders, &c. The breasts, according to Dr. Dewees, sometimes swell and become tender.

TREATMENT.—*During the attack,* apply hot cloths to the back and abdomen, use hot hip-baths, hot foot-baths; and if these fail to give relief, a general warm bath, or warm wet-sheet pack, will scarcely fail to mitigate the pain. These baths should be used for a considerable time, and repeated on a return of pain. The sheet-bath is the best, from the fact that the patient may remain at perfect ease while in it; and if

no disagreeable symptoms of heat or oppression arise, it may be continued as long as two hours at a time. When the discharge is scant, as it generally is, the warm hip-bath should be used every night, beginning three or four days before the menstrual period.

During the *interval* between the menstrual periods, all the means already prescribed for the restoration of the general health should be used. (See "Retention and Suppression.")

MEDICINES.—Opium is the principal reliance for allaying the pain of difficult menstruation, but so potent a remedy should seldom be used in domestic practice. We have found the following powder to be very good, and it has the advantage of being much more safe than opium:—

Take camphor, ½ drachm; saltpetre, 1 drachm. Powder—mix, and divide into six powders. One every hour, in syrup or gum-water.

Excessive Flow of the Menses.

As there is no kind of uniformity in the quantity of menstrual fluid discharged by different women, menstruation can only be called excessive when it is so profuse as to affect the health. Dr. Meigs says: "I have known a girl of fifteen to use sixty napkins, soaked full, for each menstruation, without appearing to be rendered unwell by the loss." Every woman, then, obeys a law of her own constitution, in this particular, and what is excessive for one, is not for another. The discharge may be natural in *quality*, but it may be excessive in *quantity*, either from too

great a flow at one time, or too frequent return of the times. It should not be forgotten that natural menstrual fluid does not coagulate or clot; and therefore, the appearance of clots indicates that the discharge is not healthy.

CAUSES.—Repeated child-bearing, and over-suckling, are considered by Dr. Churchill to be the most frequent causes of excessive menstruation. But there can be no doubt that the relaxing, enervating influences to which women are exposed, from the use of foot-stoves, feather-beds, and various other kinds of self-indulgence, have much to do with this disorder. Indeed, we think if women would obey the laws of health, the performance of their duties as mothers would not often result in disease. In those predisposed by bad habits, conjugal pleasures, as well as maternal duties, may become an exciting cause. Excessive menstruation renders women very liable to miscarriages and falling of the womb.

TREATMENT.—As soon as the flow becomes excessive, or is likely to do so, the patient should lie down on a mattress or sofa, in a cool, well-aired room, and she should remain perfectly quiet until all threatening symptoms have passed off. If this does not check the discharge sufficiently, she may use cooling acid drinks, such as lemonade, vinegar and water, cream of tartar dissolved in water, &c. Cold drinks may be taken freely from the beginning, without the acids, to the exclusion of coffee, tea, and all warm stimulating drinks. Should the discharge become *very* profuse, cold cloths may be safely applied to the lower part of the belly, and frequently changed. Cold water

may also be injected into the vagina; but these remedies will seldom be required. During the interval, the means of restoring the general health should be attended to. In short, the general plan recommended in "whites" and "green sickness" will be appropriate.

MEDICINES.—Besides the acid drinks prescribed, ten drops of elixir vitriol may be taken, adding a sufficient quantity of sweetened water to make an agreeable drink. This should be taken through a quill. Ten drops of this, or the same quantity of muriated tincture of iron, may also be taken three times a day, during the intervals, with advantage. Cold witch-hazel tea, during the attack, is a valuable and safe domestic remedy.

Effects of Disordered Menstruation.

There is nothing that will produce so many general derangements, and such multiplied aches and pains, as diseases of the womb. Even the milder functional disorders that we have been considering, give rise to the following train of symptoms: pain in the head, sometimes across the forehead, sometimes on one side, and often in the back part; pain under the left breast occupying a small space, in the region of the heart; pain in the back, and region of the womb; tightness across the breast, with a choking sensation like a ball in the throat; pain under the short ribs; colic pains in the lower bowels; nervous pains over the whole abdomen; pain in the kidneys, and difficulty in passing water. Besides these we have that serious impairment of the general health called

Chlorosis or Green Sickness.

CAUSES.—Green sickness is generally connected with the various disorders of menstruation, and particularly absent, suppressed, and profuse menstruation. The indolent and luxurious habits of the wealthy, and the excessive labors and insufficient food of the poor, tend alike to enfeeble the body in general, and the digestive organs in particular, so that there is not sufficient vital power to establish and carry on menstruation; and green sickness is the result.

SYMPTOMS.—There seems to be a want of energy and vitality in all the organs. The brain is disturbed, the mind is a prey to fretfulness and gloomy forebodings, and the sleep is broken and disturbed by frightful dreams; there is singing in the ears, specks before the eyes, swimming in the head, partial loss of sight, trembling of the limbs, nervous pains in the face and in various parts of the body. The heart palpitates, the lungs pant for breath, the stomach loathes food, or desires the most unwholesome and disgusting things, as dirt, ashes, and even insects; while even ordinary food often causes weight, fullness, and pain at the pit of the stomach, heartburn, and vomiting. The bowels are generally costive, but sometimes loose; and the urine is pale, generally scant, but occasionally profuse, when the brain or nerves become unusually excited. The face is bloated, the eyes are sad and languishing, the eyelids swollen, the lips pale, and the skin cool, clammy, and often cold, especially about the hands and feet.

TREATMENT.—The most marked and essential fea-

ture of this disorder, is a thin, watery, and impoverished state of the blood. And, therefore, whether the chlorosis be the cause or the effect of the accompanying menstrual derangements, the great object of treatment should be to improve the general health, and to restore the blood to its proper condition. This is to be done mainly by diligent attention to all the hygienic agencies. The patient should breathe a pure, bracing air; she should exercise as much as the strength will allow; her diet must consist of ripe fruits, laxative vegetables, corn bread, unbolted flour, &c.—as recommended under another head—and meats in moderation, and especially beef and mutton, are unobjectionable; but all food must be adapted to the digestive powers, and when an article disagrees it should be left off; for food, when undigested, irritates and weakens rather than strengthens. Water is the best drink, for, in these chronic cases, spirituous drinks can only produce a temporary exhilaration, followed by increased debility. Stimulants may be beneficial in removing some urgent symptom in acute diseases, but their habitual use in chronic affections cannot be too strongly condemned. The dress should be sufficiently warm, and loose enough to allow the most perfect freedom of every movement. In some cases of extreme debility and sensitiveness to cold, it may be advisable to wear flannel next the skin, but, as a general rule, cold bathing and friction are safer and more effectual. Whether flannel is worn or not, it is important to avoid all partial exposure of the body, and therefore the legs, feet, arms, and breast should be comfortably and uniformly clad. (See

"Dress" and "Bathing," and the directions for the general health, in the preceding sections.) Late hours should not be kept, and mattresses should be used instead of feather beds. The mind should be diverted by innocent amusements, social intercourse, and works of charity and benevolence; and all depressing mental influences, high-wrought romances, and everything calculated to work on the feelings and affect the nerves, should be studiously avoided. Traveling cannot be too highly recommended, on account of its influence both on mind and body.

The *medical* treatment in this disorder consists principally in the use of the various preparations of iron. Those already prescribed are very good, but we will add one other prescription from Dr. Meigs:—

Take of citrate of iron, 2 drachms; sulphate of quinine, ½ drachm; water, 1 fluid ounce. Dose from 20 to 30 drops, in syrup and water, a half hour after each meal.

We have found the following powder to be an excellent tonic in chlorosis and other cases requiring a strengthening course:—

Take equal parts of powdered columbo, carbonate of iron and ginger, mix them well together, and take as much as will lie on the point of a case knife, three times a day, before eating.

"Steel dust" is also one of the very best medicines; for the preparation and use of which, see "Absence and Suppression," &c. Finally, we would remark that iron is a valuable auxiliary in the treatment of the grave complication of disorders embraced in the term chlorosis or green sickness; but after

all, the great, the principal, and the indispensable remedies are pure air, bathing, exercise, cheerfulness, a healthful, nourishing, digestible diet, and uniform comfortable clothing.*

CHAPTER IV.

HYGIENE OF MENSTRUATION.

Directions as to Young Girls.—After what has been said in the hygienic part of this work, it is only necessary to add a few special directions for the management of young girls who are approaching the menstrual age. Mothers should never suffer a false modesty to prevent them from instructing their daughters as to the nature of this discharge, for in the absence of this knowledge, attempts have been made to "oppose the salutary efforts of nature by lotions, injections, and other equally dangerous agents." And if no attempt of this kind is made, the young girl may suffer much unnecessary anxiety of mind, which her modesty causes her to conceal. Girls of the greatest purity and modesty are exposed to peculiar besetments, while their whole being is in the unsettled revolutionary state which precedes the first appearance of the menses. And though there may be no breach of propriety and good morals, yet

* For constipation and the menstrual complications of chlorosis, see under the appropriate heads.

the mind, under these natural impulses, is prone to false, extravagant, and imaginative views which may lead to romantic attachments, that may react unfavorably on the physical constitution, and imbitter the whole subsequent life. Girls, then, at this interesting and critical period, should have their minds directed to those books which exercise the reason and judgment, to the exclusion of those which address themselves to the imagination; and above all, those seductive fictions should be forbidden that beautifully, delicately, and insidiously awaken feelings, and excite thoughts, that modesty and purity would fain repel. On the same principle, theatres, balls, and promiscuous assemblages are calculated to exert an unhappy influence on the mental and physical, as well as the moral, constitution, at this highly impressionable age.

THE "CHANGE OF LIFE."—The period of the final cessation of menstruation, is commonly considered to be a very critical one with women. But so far is this from being true in every case, that many women who have greatly suffered from menstrual derangements, only begin to enjoy health and happiness when the womb ceases to perform its functions. It is true that some malignant diseases of the womb are more apt to develope themselves at this time of life, but the fears entertained as to the dangers of this period, have probably originated from the mistaken popular notion, that menstruation is a purging of the body from hurtful and poisonous matters.

This notion has given rise to the common practice of taking pills, elixirs, "life-preservers," blood-purifiers, drastic purgatives, and numberless other villain-

ous compounds, far more dangerous to the constitution than the condition they are intended to remove.

Women, as they approach the change of life, which usually occurs about the forty-fifth year, instead of physicking to guard against imaginary dangers, should only more strictly observe the rules of hygiene. The diet should be light, unstimulating, and mostly vegetable; fat meats, tea, coffee, wines, spices, and, in short, everything of an exciting nature, should be excluded from the dietary. If the menstruation has been profuse, if the habit is full, and if there is a rush of blood to the head, or any symptom of inflammation about the womb, the diet should be *low*, the exercise active, if nothing forbids; and the excitement should be subdued by the cold wet-sheet pack two or three times a week, or oftener, if necessary. Particular care should be taken to guard against cold, and especially against all partial exposures, such as uncovered arms, thinly-clad feet, &c. The bowels should be regulated by the use of warm-water injections, and a laxative diet, consisting of ripe fruits and vegetables, and particularly stewed peaches, baked and stewed apples, hominy, wheaten grits, unbolted flour, corn bread, &c. We repeat our caution against the use of purgatives, and even of laxatives, except under peculiar circumstances. Aloetic medicines are to be particularly avoided. Finally, women at this time of life should cultivate the intellectual and suppress the emotional—they should seek the calm, complacent, and ennobling pleasures of *mind*, rather than those frivolous and disturbing enjoyments which are injurious to the health and derogatory to that respect which a cultivated

woman is so well calculated to inspire at this time of life. Fretfulness, discontent, and all gloomy depressing feelings should be dispelled by the agreeable thought that the pangs, dangers, and troubles of child-bearing are over; and that this period being happily past, they then have a better chance of a long life than men.

CHAPTER V.

ORGANIC DISEASES OF THE WOMB.

Under this head will be noticed—inflammation of the womb; tumors; cancer; and other malignant diseases of the womb; and displacements of this organ. All these, except the last, involve more or less change of *structure,* and are therefore properly called organic diseases.

Inflammation of the Womb.

Acute inflammation of the womb, in women not with child, or in child-bed, is not a frequent disease, and need not detain us long.

Causes.—The most common causes are, blows, falls, and sudden suppression of the courses.

Symptoms.—Chilliness, followed by fever; heat and uneasiness in the region of the womb, with occasional sharp pains in the back darting forwards, and down the thighs. The pain is much increased by coughing, sneezing, moving, and by hard pressure over the womb.

TREATMENT.—If there is much fever, sponge frequently with cold water, or use the cold wet-sheet pack, and repeat it until the fever abates: this should be used from a half-hour to an hour each time, according to the effect as indicated by the feelings. The only additional treatment adapted to domestic practice is, a cold wet bandage to the lower part of the belly, renewed as often as it becomes warm; frequent injections of cold water into the vagina; occasional injections into the bowels of water, cold or warm, according to the feelings and effect, if there is constipation. Cold water may be taken according to the thirst; and Epsom salts and Seidlitz powders may be safely used, if the bowels are very costive and do not yield to the injections.

Chronic or *slow* inflammation of the womb is a much more common disease than the form above; for, while acute inflammation (except in child-bed) is rare, slow or chronic inflammation, especially about the *mouth* of the womb, is a disease of very frequent occurrence. All ages are subject to it, but it is seen oftenest during the child-bearing age. Many cases of disordered menstruation have their origin in chronic inflammation of the womb; and women, through ignorance of this fact, or through delicacy, often fail to seek relief until their sufferings become intolerable, and the disease is, perhaps, beyond remedy. The *body* of the womb is sometimes affected; but, as this is comparatively rare, we pass on to *chronic inflammation* of the *mouth* and *neck* of the *womb*.

CAUSES.—In civilized life, the predisposing and exciting causes are almost innumerable; we therefore

refer to the causes enumerated under the head of "Simple Absence of the Menses"—"Suppression or Stoppage," &c.—"Painful Menstruation,"—"Excessive Flow," &c.—and "Whites."

Symptoms.—Chronic inflammation of the womb is a very insidious disease, and it not unfrequently makes considerable progress without any symptoms in the part affected sufficiently marked to attract the attention of the patient. We have known a case, where an examination revealed a large *ulcer** on both lips of the mouth of the womb, and yet there was scarcely any pain in those parts. When local symptoms are present, they are a dull pain in the lower part of the abdomen, depression or sinking down of the womb, sometimes; and frequently a mucous or whitish discharge, which is sometimes tinged with blood, if there is ulceration. Pain in sexual intercourse is perhaps one of the earliest and most common symptoms. Among the local symptoms may be mentioned also the various disorders of menstruation, as suppression, excessive flow, and particularly *painful* menstruation. Pain or some uneasiness in emptying the bladder and bowels is also a common symptom. The general or constitutional effects of chronic inflammation of the womb, are so numerous as to defy description: the principal of these are, pains in the head, mostly in some particular part, as the back, front, or one-half of the head; deranged stomach, manifested by sourness, sickness, stinking-belch, "goneness" at the stomach, &c., &c. The bowels are

* An eating-out of the flesh; loss of substance.

irregular, the heart palpitates or intermits, there is a feeling like a ball in the throat, change of disposition, loss of flesh, discoloration or blanching of the skin, indescribable nervous feelings and pains; and in short, all the symptoms mentioned under the head of "Chlorosis," and many more, which will never be described, from the fact that there is no language to express them.

TERMINATIONS.—The most common terminations of inflammation of the womb are *enlargement, thickening, hardening,* and *ulceration* of the inflamed part. And when we speak of "terminations," we do not mean to convey the idea that the disease actually *ends,* but that the inflammation results in structural or organic changes which may, or may not, be beyond remedy.

Enlargement, hardening, and ulceration may exist separately, or they may be combined. The existence of these changes can only be positively determined by an "examination;" and we therefore most earnestly advise all who are afflicted with symptoms of inflammation of the womb, to seek the advice of a skillful physician, should the remedies soon to be prescribed, fail to give relief in due time.

TREATMENT.—The great objects of treatment should be to improve the general health, and to distribute the blood throughout the whole system, and thus draw off any excess from the womb. To accomplish the first end (improvement of the general health) the course prescribed in "Whites," "Simple Absence," &c., and "Green Sickness," will be appropriate. A general bath should be used once a day,

but the water should be tepid or warm at first, and the shower-bath should not be resorted to until the system has been gradually accustomed to cold water, and the vital powers sufficiently strengthened to react fully and quickly. It is best to begin with a sponge-bath or general wash-down with water slightly warm, using it a little colder each time. With these precautions, the cold bath may be safely used in every form of chronic womb disease, with the greatest advantage, and far more safely than forcing drugs, pukes, purges, opiates, stimulants, and other remedies so often resorted to in domestic practice. It is all a notion that the judicious use of cold water in womb diseases is dangerous; for the womb is not more liable to be injuriously affected by cold than any other organ; and the manner in which water acts, and the principles that should guide in its use, are so plain and easily understood, that any one of ordinary intelligence can understand and apply them. But the same cannot be said of drugs, which must be prescribed, by those not well versed in the mysteries of medicine, in a kind of hap-hazard way, with as much probability of doing harm as good. The rush of blood to the womb should be checked or prevented by *short* cold hip-baths two or three times a day, as prescribed in whites; and the injections, frictions, and other means of procuring a strong action of the skin, should be diligently attended to. The wet bandage should be worn on the abdomen constantly, and changed whenever it becomes dry or unpleasantly warm. This sometimes causes a breaking out on the skin; but be not alarmed at this, for it is an evidence

of the favorable action of the remedy. For the palpitation of the heart, and the dyspeptic symptoms, there is nothing better than the wet bandage. In the palpitation, a cloth may be simply wet in cold water, and laid over the heart, exposing the breast to the air, and changing the cloth frequently if there is much excitement, and especially if there is excessive heat about the breast or body.

This will almost always succeed in relieving this very disagreeable symptom, until it can be finally removed by the improvement of the general health. We have had a case of this kind, in which the heart fluttered, intermitted, or stopped, and cut up a great many strange capers, much to the alarm of the unfortunate lady, who verily thought sometimes that her hour had come; the wet cloth, as prescribed, and the hot foot-bath, which is a valuable addition, never failed to give relief, until the original cause (inflammation of the mouth of the womb) being removed, the palpitation gradually ceased. Headache is best relieved by the hot foot-bath, and by strict attention to diet, to the bowels, and to the state of the mind. The diet should consist mostly of vegetables, fruits, and the laxative articles of food before prescribed. (See "Whites.") These will generally be sufficient to prevent or relieve constipation, but should anything else be necessary, use injections, and establish a regular habit by having a set time to attend to the calls of nature.

MEDICINES.—Any of the preparations of iron, prescribed under the preceding heads, may be taken; but purgatives should be avoided as far as possible. And our experience enables us to assert positively that

they are not often necessary. Forcing drugs, such as aloes and other things intended to bring on the courses, *should be shunned as the very gates of death.*

Ulceration, which is one of the effects or terminations of inflammation of the womb, consists in an eating out of the flesh, forming a hole or raw surface. As we have before stated, ulceration may exist without any very well-marked symptoms in the part affected. When these are present, they are pretty much the same as those of inflammation; but there is only one way in which ulceration can positively and certainly be discovered, and that is by having a physician to examine with his finger and with a glass or metal tube, called a *speculum.* When an inflammation of the womb obstinately resists the treatment above prescribed, no feelings of delicacy should prevent women from submitting to this kind of examination. And so far from hesitating to do so, they should suggest it to their physician, should he fail to discharge his duty in this respect through negligence or any other cause. It is true that this is a repulsive and disagreeable operation both to physician and patient; and we are sure that we can enter fully into the feelings of both; yet, while we would fain shun this disagreeable duty, and while we highly, warmly appreciate that true modesty and delicacy of feeling which are the brightest ornaments of womanhood—yet we say—while all this is true, we can but condemn that false and extreme modesty that prevents women from submitting to an examination when health and even life itself are involved. We entreat our readers to let nothing of this kind induce them to conceal their true condition; for health is the

first, the *greatest*, the *most desirable* of all earthly objects; and any sacrifices and exposures, in pursuit of this most precious boon, will only increase the respect, and elicit the tenderest sympathies of every true-hearted man. And any man who is capable of any other feelings towards a suffering and afflicted woman, is unworthy of the name of physician—a burning reproach to his profession, to manhood, and to common humanity. We hope, and believe, that there are few, *very few*, regular physicians who would unnecessarily expose a woman through a desire for gain, or through any base or unworthy motive. 'Tis true that there are illegitimate harpies who hang on the skirts of the profession, and occasionally obtain admittance into the sacred portals of Medicine. These speculators in human misery, and contemners of womanly virtue and purity, may generally be known by their lofty pretensions, their unbecoming familiarity and want of respect towards women—a studious mysteriousness of manner, and a pompous affectation of knowledge. Of such beware!

TREATMENT.—When ulceration has been discovered by an examination, the same general plan prescribed in inflammation may still be pursued. But there is one other remedy which we have found to be very valuable. This is a *continuous* application of cold water immediately to the sore or ulcerated place on the womb.

This application is made with a funnel and gum elastic tube. It is highly efficient; but as it could not be used well except under the direction of a physician, we think it needless to describe the apparatus. We

mention it, however, in order that patients may suggest it to their physicians; for it is a remedy but seldom used. And yet, what is more likely to exert a happy influence over a sore and inflamed surface than the direct, cooling, soothing, cleansing, constant application of cold water?

In a very severe case of ulceration, involving both lips of the mouth of the womb, we have used it as much as six hours in a day, with short intervals for rest, with the most happy effects, and without a single disagreeable symptom. And this case was two or three months advanced in pregnancy, and the disease had resisted burning with lunar caustic, which had been frequently resorted to, together with all the most approved remedies. In this case the mouth of the womb was not only extensively ulcerated, but it was swollen and had a livid appearance, almost like some malignant disease; and the general health was very much impaired:—indeed she had almost all the symptoms already mentioned as arising from inflammation of the womb. Yet under the use of the *womb-bath*, in a few weeks the inflammation subsided, the ulceration healed, and she is now near her confinement, and in excellent health—better than she has been in all her life: *and all this without a single dose of medicine.* We know that there is a strong prejudice against the use of cold water among many, and especially in womb diseases, but reason and experience teach us that these prejudices are unfounded, and that cold water is a safe and most effectual remedy even in bad cases of inflammation of the womb, as the above case conclusively shows. And

this case has been introduced for the purpose of inspiring confidence and removing groundless fears.

Tumors and other Collections in the Womb.

NATURE OF THE TUMORS.—These are solid fleshy bodies growing in the walls of the womb; or they are attached to the mouth, or some part of the inner surface of the womb, by a slender stalk or pedicle: in the latter case they are called *polypous* tumors—in the former—*fibrous*. The fibrous tumors seldom produce any constitutional effect, and the *symptoms* are mostly mechanical, or such as are caused by pressure; such as weight, bearing down, aching in the back, &c. But we think it unnecessary to say more on this subject, as these tumors are comparatively rare, and as their management does not pertain to domestic practice.

POLYPOUS TUMORS.—The remarks above are, to a considerable extent, true of polypous tumors; yet it is desirable that women should know something of the nature and symptoms of these growths, so that they may seek timely aid when they have the symptoms soon to be mentioned. Polypous tumors vary in size; they may be no larger than a pea, or as large as a child's head. They are solid fleshy masses suspended by a stalk from the inside of the womb, or from the mouth of the womb.

SYMPTOMS.—When these tumors attain a considerable size, there is a bearing-down pain, straining, and difficulty in evacuating the bladder and bowels; but the most striking symptom is frequent, and sometimes profuse, *floodings*. Another symptom of very

constant occurrence is vomiting and sick stomach. When these symptoms occur, and especially when they persist so as to cause paleness, loss of flesh, palpitation of the heart, and other symptoms arising from loss of blood, no time should be lost in seeking the advice of a skillful physician, who can generally give relief by an operation.

Air and Water in the Womb.—Besides these tumors, there is sometimes, though rarely, a collection of air or water in the cavity of the womb. The *symptoms* are almost precisely those of pregnancy yet to be noticed, and the distinction can only be made by a physician.

Other collections in the womb, as *moles*, &c., will be noticed under a subsequent head.

Malignant Diseases of the Womb.—Cancer.

Cancer and other malignant diseases are characterized by a disposition to spread and extend themselves by changing the structure of the surrounding parts. Cancer is the most fearful and fatal disease to which the womb is exposed. It rarely attacks young women, and is most common about the "change of life."

Stages.—There are two stages of cancer; one is the stage of *thickening* or *hardening*, and the other, the stage of *open ulceration*.

Causes.—The disease is frequently hereditary, and when there is a predisposition, any of the causes already mentioned as likely to excite the womb, may develop cancer.

Symptoms.—These are very numerous, and we will only notice the principal. In the stage of *thicken-*

ing and *hardening*, before ulceration begins, the symptoms are such as arise from pressure: as uneasiness in standing and walking, a bearing down sensation, straining in emptying the bowels and bladder, &c., &c. In the early part of this stage, there is not generally much decided pain, nor is there much discharge either white or red, and the discharge is not offensive.

In the *second* stage, or that of *open cancer* or ulceration, the symptoms are more marked. The pain is severe, acute, and darting or burning. Sometimes it is said to be like knives plunged into the affected part. In this stage, there is more or less loss of blood, sometimes considerable; and when blood is not present, the discharge is thin, greenish, black, dirty white or brown, and has a very offensive smell; so much so that it is a source of great annoyance to the unfortunate patient and all her attendants. This discharge is also acrid and irritating, removing the skin, and causing a rawness of the privates, the inside of the thighs, and all the parts with which it may come in contact. All the difficulties about the bladder and lower bowel are now increased; and the pain in evacuating these is sometimes most intolerable. The skin is yellow or of a leaden hue, there is slow fever, night sweats, great loss of flesh, sick stomach, want of appetite, and in short, general derangement in all the functions of the body.

TREATMENT.—*Confirmed* cancer is an incurable disease; but much may be done to palliate the symptoms, and if the disease be discovered in its first stages, there can be no doubt that it may be held in check by a judicious course of treatment. And as the

symptoms are at first so obscure that the existence of approaching cancer can only be certainly determined by such an "examination" as we have before so strongly insisted on, no time should be lost in submitting to such an examination, if suspicious symptoms are present. The grand objects of treatment should be, 1st, to remove as far as possible any of the causes already mentioned under the preceding heads, that are likely to excite the womb; and 2d, to draw off the excitement from the womb. The first is to be accomplished by avoiding foot-stoves, heavy clothing about the hips, sexual indulgences, stimulating food and drinks, and especially tea and coffee. The blood is to be drawn off from the womb by the frequent use of *short* cold hip-baths, followed by frictions, as prescribed in whites, and by the use of injections into the vagina with water cold or warm, according to the feelings. The bowels should be relieved every day by an injection of warm water, and the diet should be of the laxative kind already so often prescribed. The body should be sponged all over, once a day, with water cold or tepid, according to the feelings, and this should be followed by a good rubbing, and by carriage exercise, if more active exercise cannot be taken. If the frequent injection of water into the vagina is not sufficient to remove the offensiveness of the discharge, ten grains of nitrate of silver (lunar caustic) may be added to one ounce of water, and used occasionally. Chloride of soda may also be used in the same way, by taking a teaspoonful of the solution, and adding it to two ounces of water. The diet should be light, mostly vegetable, and *small in quan-*

ity, especially if there is feverishness and disordered stomach. Opium and other narcotics are generally prescribed in the last stages of this disease, to mitigate the sufferings of the poor unfortunate; but we cannot recommend this practice, if it can possibly be avoided: at any rate it should not be resorted to, without the advice of a physician, and even when prescribed by him, there should be great reluctance to adopt a course of treatment which, while it procures temporary ease, only increases the general derangement of the system. Therefore make opium the *last resort;* use it only to smooth the pathway to the tomb, and be fully assured that nothing else will do. After exhausting the remedies prescribed, before resorting to opiates, give the womb-bath as prescribed in ulceration a fair trial. We cannot imagine anything more likely to soothe the pain, allay the inflammation, and wash away the offensiveness than this; and it is far more safe than opium, or anything of the kind.

Corroding Ulcer and Cauliflower Excrescence.

These are also malignant diseases of the womb. The *symptoms* resemble very much those of cancer—so much that the distinction cannot well be made in domestic practice. About the only difference between corroding ulcer and cancer, is the absence in the former, of the filling up around the diseased part and the thickening and hardening, which have been described as the first stage of cancer. The most distinctive symptom of cauliflower excrescence is a profuse watery shedding at first, which after awhile

is streaked with blood, and finally changes to a profuse flooding. The other symptoms are almost identical with cancer, and the *treatment* should be conducted on the same plan.

Falling of the Womb.

This disorder is described in medical books as *prolapsus uteri*, and is one of the most common and disagreeable infirmities to which women are subject. The womb may descend but a little below its ordinary level, or it may protrude entirely, so as to be seen. The natural position of the womb is from four to six inches from the external opening; and when the woman can *easily* touch its mouth with her finger, she may know that it is lower than it should be. Yet there may be a considerable sinking of the womb without any material inconvenience, and the organ is naturally lower in some women than in others. Falling of the womb may occur at any time of life, but child-bearing women, somewhat advanced in years, are much more subject to it than others.

CAUSES.—There can be no doubt that the immediate cause is relaxation of the vagina and the muscles of the abdomen. The "relaxation of the ligaments," so much dwelt upon in medical books, has little or nothing to do with it, only as an *effect*. The relaxation of the vagina and abdominal muscles is caused by child-bearing, whites, and all those debilitating habits of civilized life which weaken the body. In short, everything that shatters the nerves and enfeebles the muscles, predisposes to falling of the womb.

The *exciting* causes are getting up too early after

confinement, falls, especially on the feet or buttocks tight dresses, lifting heavy weights, straining, as in evacuating the bowels, pulling at the cord after confinement, in delivering the afterbirth, &c., &c. A few of these causes will be noticed more particularly. Child-bearing and too early getting up after confinement have been mentioned among the causes; but it is our opinion that these things would but seldom result in falling of the womb, if women would leave off their enervating habits, and live so as to give strength and firmness to their muscles. To suppose that falling of the womb is a necessary result of child-bearing, in itself, is to impugn the wisdom and goodness of the Almighty, and to say that he has imposed a duty on woman which she cannot perform, except at the sacrifice of health and comfort. Can any one believe this? Errors in dress have also been mentioned among the causes. In addition to tight dresses, we would call special attention to long-waisted and long-pointed dresses as a cause of falling of the womb. These long points generally contain steel or whalebone, and they crowd the contents of the belly downward on the womb, which yields to the pressure, having nothing to support it below, except the vagina in which it rests. No woman who desires health and comfort should ever wear a long-pointed dress. Hanging a number of skirts on the hips and lower part of the abdomen, is also well calculated to cause falling of the womb; and for this reason we rejoice at the introduction of hoop skirts, which obviate the necessity for so many under-garments, and remove, to a considerable extent, the downward dragging weight.

Use them, then, of *moderate* dimensions, and let fools laugh and jeer. While speaking of the causes, it may be proper to explain a little more fully how relaxation of the muscles of the abdomen or belly causes falling of the womb. This will serve to show the importance of using means to prevent the relaxation. When these muscles are firm and strong, any one can see in a moment that they must press the stomach, liver, bowels, and all the contents of the belly, upwards and backwards, whereas if they are relaxed, they will yield to the pressure from within, and allow the organs to push forward and press downward, crowding on the womb.

SYMPTOMS.—These are, pain in the back, or perhaps oftener, weakness in the back, with a dragging bearing-down sensation, as if something were about to come away. These feelings are much worse in standing or walking, and they are apt to be most troublesome in the evening. With these symptoms there is not unfrequently a whitish discharge, and some straining and difficulty in evacuating the bladder and bowels. In some cases, the pressure on the bladder is so great as to cause a total stoppage of urine; and most cases of what are called "gravel," among women, have their origin in falling of the womb. In these cases, the difficulty is caused by pressure. "Whites," as just intimated, is a very common accompaniment of falling of the womb. The "courses" generally continue regular; at any rate, there is nothing in the prolapsus to prevent this. The stomach and bowels often sympathize with the womb, and there is loss of appetite, collections of wind in the bowels, and other

dyspeptic symptoms. The spirits flag, and there is often nervousness and general derangement of health. When the womb escapes between the thighs, it is much exposed to irritation from friction, pressure, and from the passage of urine over it, and it is very likely to become sore, and raw or ulcerated.

TREATMENT.—Should the womb be entirely out, and should there be any soreness or inflammation about the mouth of it, the womb-bath should be used by letting the water fall on the affected part from a long-mouth funnel, or from a shorter tube than would be needed, when the introduction of the latter is required. Yet the tube or funnel should be placed close to the womb, so as to prevent any shock from the fall of the water. All swelling, soreness, and inflammation having been reduced by the persevering use of this bath (using the water cold or warm, according to the feelings), the womb should then be pushed back to its place with the finger, and the following treatment (which is also appropriate in cases where the womb does not come out) should be pursued. Throw up the vagina, with a womb-syringe, the coldest water three times a day, or oftener, if there is much pressing down. Three or four syringefuls should be thrown up each time. In addition to the cold injections, use a cold hip-bath one or two minutes, but not longer, three times a day, and rub well, as directed in whites. Apply a bandage also to the abdomen, made as follows: Take a piece of cotton jeans eight or ten inches wide, and place gores in the bottom, so that it will fit over the hips; then button to this in front, a piece of soft old cloth from three

to five inches wide, and pass it down between the thighs, to be buttoned to the bandage behind. This should be moderately tight, so as to afford comfortable support. Whenever the bandage is removed—which should be once a day—wash the lower part of the abdomen where it has been applied in cold water, and rub well. Should a persevering use of these means fail to give relief, which will seldom be the case, add as much powdered alum to the water as it will dissolve, and continue to inject in the same way as when the water was used alone. Should the womb still fall out, a sponge of the proper size, with a string run through it, to withdraw it, may be soaked in alum water or strong red-oak bark tea, and pushed up the vagina, after the womb is replaced. This sponge should be removed at least once a day, for the purpose of using the injections. All this a woman, by exercising a little ingenuity, can do herself, and she may thus often relieve herself of this very troublesome infirmity, without any exposure. *Pessaries* of glass, wood, &c., are often used by physicians for the purpose of keeping the womb up, but nothing but the sponge pessary prescribed should ever be resorted to in domestic practice. The bowels should be kept in proper condition by the use of the laxative diet so often prescribed, and by injections of cold or warm water with a common syringe. This the woman can also use herself by getting a self-syringe; and it is important that constipation should be guarded against, for the passage of hardened matters from the bowels tends strongly to force the womb down. Have a regular time to empty the bowels then, and throw up

a large syringeful of water just before the time. If it will answer the purpose, cold water will be better; but if not, use warm water. Sleep on a mattress, and be very gentle and cautious in all your movements; but still take as much exercise as the nature of the case will admit. But exercise must always be discontinued whenever there is a great increase of pain, bearing down, &c.; and you must then lie down on your back until all these symptoms pass off. The great majority of cases of falling of the womb may be either cured or greatly relieved by this simple course of treatment, and we do hope that neither negligence, nor prejudice against the use of injections, or anything of this kind, will prevent our readers from following our advice.

Falling of the Womb Backward.

After falling *downwards* of the womb, this is the most common displacement. In this form the womb tilts backwards, and is wedged down by the prominence at the lower part of the back bone. It occurs most commonly in the early stages of pregnancy, and is generally caused by suffering the urine to accumulate in the bladder. The SYMPTOMS are straining and difficulty in passing the urine, and in emptying the bowels; and the accident will require the attention of a physician. This form of displacement has therefore been introduced only to guard women against holding the water too long, which they are very apt to do from modesty, and the restraints imposed on them by society. While pregnant women are most liable to this very disagreeable accident, it

may occur in others, and we therefore repeat that women should not suffer anything to induce them to let the urine collect too largely in the bladder.

It is in the various *displacements* of the womb, that we may expect the greatest benefits from the "movement cure," which includes not only position, but also well directed exercises for strengthening, and developing the muscles of the chest and abdomen. We have practiced this with great success, in a number of old and obstinate cases. In fact, we know of nothing so simple and effectual in these troublesome cases. But the details of treatment cannot well be given in a work of this kind. One of the most important parts of it, however, is to rest frequently on the breast and knees, with the hips elevated. But at the same time, a systematic course of exercises for strengthening the muscles and expanding the chest, should be practiced.

CHAPTER VI.

SYMPTOMS OF PREGNANCY, AND HYGIENE OF GESTATION—THE CHILD-BEARING LIFE OF WOMAN.

It is hardly necessary to say anything on the importance of determining the existence of pregnancy in many cases; instead, then, of insisting on this, we will only say that women should inform themselves, as far as possible, as to the symptoms of this condition; for, with all the knowledge they can

obtain, they will often be left in doubt for some time, although many ignorant people would have them believe that there is nothing easier than to decide as to the pregnancy of a woman, even in a few weeks or days after conception.

Pregnancy causes a change in the features generally. The eyes are said to lose their brilliancy, and they are surrounded by a dark circle. The nose becomes sharper and apparently longer, and the chin seems to be more prominent. In short, there is often a kind of tightness or sharpness of the whole face. The neck, also, frequently enlarges. The breasts increase in size, become tender and firmer, the nipple rises and is surrounded by a dark circle, and sometimes a thin whitish fluid may be squeezed from the nipple. In women who have never borne children, the circle is very plain, and is a symptom of great value. The taste is frequently perverted, and there are strange longings. Loss of appetite and "morning sickness" are rarely absent in the early months of pregnancy. This morning sickness is sometimes attended with a pain in the back part of the head and vomiting; and whether the vomiting be present or not, the sickness is attended with great weakness, loathing, and disgust about the stomach.

The moral feelings of women are frequently much changed by pregnancy, and sometimes the disposition undergoes a complete revolution: women who are naturally gay and good natured become gloomy and fretful; and on the other hand, those of an unlovely disposition become more amiable and interesting. Corresponding changes are seen in the intellectual

faculties, but these are, perhaps, oftener exalted than depressed.

Some women have a kind of salivation or profuse spitting as a symptom of pregnancy; and others have signs peculiar to themselves, by which they can determine their condition with considerable accuracy, *after they have had sufficient experience.*

But of all the symptoms of pregnancy, the most reliable, perhaps, are those furnished by the menses and urine. It is a rule, with very few exceptions, that pregnancy suspends menstruation; a woman, then, who is "regular," may tell pretty well from this sign; but its value is much impaired by the fact that many things besides pregnancy will stop the courses. Yet when there is no manifest cause for this stoppage, and when it is attended with several of the symptoms already mentioned, the evidence is tolerably conclusive. Still, it should be known that the courses may stop, and that every one of the other symptoms may be present, and yet the woman may not be pregnant. There is an appearance connected with the urine that may be readily distinguished by any one, and recent researches have shown that it is the most reliable of all the signs in early pregnancy. The urine is to be put into a glass tumbler, and set in the sun. On the second or third day, a pellicle (or scum) will rise to the surface, resembling the fatty scum that is found on the surface of broth after it becomes cold. After the fourth day, the pellicle begins to break up, and by degrees sinks to the bottom. It is found in the urine as early as the first month. There is no difficulty whatever in distin-

guishing this scum—it is sometimes pretty thick, and has a shiny, wavy appearance. And so far as our observation extends, it has been found to be an unerring sign. *Quickening*, or the sensible movements of the child, usually occurs about the fourth or fifth month, and settles the matter beyond all question, provided the woman is not mistaken in this thing, which is not unfrequently the case; for the movements are at first very feeble, and though there is something rather *peculiar* about them, nervous women and those who are anxious for an increase, have been deceived by wind moving in the bowels.

Hygiene of Gestation, or how to avoid the Diseases of Pregnancy and the Pains of Labor.

Pregnancy is a natural physiological condition, and there is nothing incompatible with its existence and the enjoyment of health. There can be no doubt that the formidable list of "diseases of pregnancy" contained in medical books, and considered by most women as natural and unavoidable, are the direct result of violations of the laws of health. That women suffer, grievously suffer, in the present state of things, is very certain; and however incredible it may be, it is equally certain that many, or all these sufferings, can be prevented. The means by which this may be done will now be pointed out; and, in most cases, we can confidently promise health and comfort as the reward of obedience. We know that such declarations as these sound strange to many, who think that a pregnant woman must be sick, as a matter of course: to such as these we can only say, try the directions here given; they

will certainly be nothing against you, and if you do not find entire relief, you will most assuredly find that many—most of the evils attendant on pregnancy are not unavoidable. Pregnancy, though a natural condition, is one of excitement; this is not strange, when we consider the wonderful changes in the womb, and the extensive sympathies of this organ. The womb, which in its natural, unimpregnated state, will not more than receive the kernel of an almond, increases its containing power more than *five hundred times!* This vast change, in an organ which is the very centre of sympathetic excitement in woman, arouses every function of the body into activity—the pulse is increased in frequency and force—the breathing is quicker—the temperature is higher—all the secretions are increased—the skin is more active—the urine flows more abundantly—the mind is generally more on the alert—the nervous sensibilities are more acute and impressible; and, in short, the whole system is in a state of unusual activity—*in a state of excitement bordering on fever.* With this fact distinctly in mind, the force and propriety of the following directions can be fully appreciated. Pure air, so important in every condition, is *absolutely indispensable* to the health of pregnant women. We have already insisted so much on the importance of ventilation, &c., that it is needless to enlarge on this subject. The clothing should be perfectly loose, and corsets, whalebones, and everything of the kind, should be banished just as soon as there is a reasonable *presumption* that pregnancy may exist. Many women bring on abortion, inflammation of the breasts, swelling of the legs, falling of the womb, and many other evils, by foolish

attempts to conceal their condition by the use of long-pointed dresses, laced jackets, &c. There is nothing disgraceful or reproachful in this condition, that a married woman should endeavor to conceal it; and those who are prompted by false modesty, or any other consideration, to do so by the use of tight dresses, will most assuredly suffer the penalty affixed to so gross a violation of Nature's laws. The feet should be well protected by shoes sufficiently thick, and drawers should be worn in cold or changeable weather to protect the legs. Garters should be dispensed with if possible, and especially in the latter months, when the veins are very likely to become enlarged. The diet of pregnant women should be plain, simple, unstimulating, and rather small in quantity. One of the greatest errors in diet arises from the idea, that the woman must eat "*for two.*" But if she eats more than she can digest, of course it does the child no good, while it does the mother great harm; a lesson which many have been taught by colic pangs, sour stomach, heartburn, headache, hurried circulation, disordered bowels, a feeling of great oppression, &c., &c. *The rule then as to quantity is: to eat just so much as the stomach can easily manage, and* NO MORE. Every mouthful over this does no good; and must do harm; and the dangers of eating too much are far greater than those of eating too little.

The quality of the food is equally important with its quantity. It should be mostly vegetable; as a general rule, meat should not be indulged in more than once a day; and especially if there be much fullness of habit. The vegetables used should be of a laxative nature, and the diet should be sufficiently

coarse to keep the bowels in proper condition. For this purpose, corn bread, corn grits, unbolted flour bread, wheaten grits, potatoes, ripe fruits in season, stewed fruits, molasses, &c., should be used. And if any of these should decidedly disagree by causing colic, sour stomach, or any other disagreeable symptom, first reduce the quantity, and if this does not succeed, leave off the offending article entirely. The food should be plain and unstimulating, and therefore all high seasoning and salting should be avoided. Stimulating drinks are also to be banished; as a general rule, pure water, and milk should be the only drinks of pregnant women. This rule, of course, excludes those common beverages tea and coffee. These are very objectionable: they are heating from their temperature, stimulating in their nature, and particularly exciting to the brain and nerves, which are too ready to respond to any additional excitement. There can be no doubt that many of the distressing nervous and dyspeptic symptoms with which pregnant women are tormented, have their origin in the excessive use of tea and coffee.

The remarks above apply with equal force to that pernicious weed tobacco; women who would enjoy health must lay aside snuff-rubbing and smoking, and especially in pregnancy. Opium and all strong medicines should be eschewed, unless they are prescribed by a physician. Many of these, and especially opiates, act injuriously both on mother and child. It is a popular notion that pregnant women must be bled; but so far is this from being true that this is rarely necessary except in some acute attacks, which are not

likely to occur if women live right. Bleeding may be necessary in some of the diseases of pregnant women, but the practice of resorting to it on all occasions, without the advice of a physician, cannot be too strongly reprobated. The absurd notion that a woman must be bled *just because she is pregnant,* has ruined thousands of constitutions; but happily the practice is falling into disuse, both among physicians and people. Purgatives are also much abused by pregnant women: they are rarely necessary, as the bowels can generally be regulated by proper diet and by injections. Exercise should not be neglected by pregnant women, and the habits should be as active as the nature of the case will admit. At the same time excessive exertion, straining, lifting, and jolting should as far as possible be avoided. Women in this condition require more sleep than at other times. The mental hygiene of pregnant women is not less important than the physical. On account of the exaltation of nervous sensibility to which we have referred, "all objects capable of affecting the imagination should be cautiously kept out of the way; such as tragical spectacles, the sight of mutilated people, of the lame, and of all persons affected with loathsome diseases. As they are in general persuaded, however erroneously, that the sight of such an object may give rise to a similar deformity in the child in utero (in the womb), they are violently agitated whenever they meet with it. Besides, the records of disease are full of cases of serious disorders, as convulsions, hemorrhages (bleedings), and abortions (miscarriages), brought on by the sight of some repulsive object, by

fright, by a paroxysm of anger, a fit of joy, of hate, of jealousy, or other acute emotion of the soul." Contagious and infectious diseases should also be guarded against by pregnant women, as some of these have been known to affect the unborn child. And the influence exerted on the child should be an ever-present consideration with those who are expecting to be mothers; for though there are many popular errors as to longings, "mothers' marks," &c., there can be no doubt that violent mental emotions may arrest the proper growth of the child, and cause deformity; and many examples might be adduced to prove that the mind and morals of the future being depend greatly on the state of mind and the feelings of the mother during pregnancy. With the view of impressing this more forcibly, we will merely enumerate some of the evidences of maternal influence over character from Combe's "Constitution of Man." The mother of Napoleon Bonaparte is said to have accompanied her husband, on horseback, in his military expeditions, shortly before the birth of the future emperor. David Rizzio was violently murdered in the presence of Mary Queen of Scotland, shortly before the birth of her son James the First of England. This monarch was remarkable for his timidity, *which was an exception to the family character!* A lady writes: "From the age of two I foresaw that my eldest son's restlessness would ruin him; and it has been even so. Yet he was kind, brave, and affectionate. I read the Iliad for six months before he saw the light.... He was actually an Achilles!"

BATHING should never be neglected in pregnancy.

To subdue the nervous and vascular excitement incident to this condition, there is nothing so safe and effectual as cool or even cold baths. These baths abstract excessive heat; equalize the circulation; remove internal congestions, or accumulations of blood; strengthen the whole system, and thus prepare it to furnish suitable elements for the development of the new being, and to pass safely through the critical time of confinement. The water need not be very cold, and the feelings may be safely consulted as to the temperature. The sponge-bath or wash-down is the best. The shower-bath and all applications that produce a violent shock, are objectionable. Pregnant women generally bear cold water remarkably well, but they cannot so well tolerate any violent impression either on mind or body. The sponge-bath as prescribed should be used every day, or every other day, from the beginning of pregnancy; and the hip-bath should be resorted to once a day during the last month or two. The temperature of this should be moderate, and it should not be continued more than from five to ten minutes each time. The position of pregnant women is a matter of no little importance. Those who would avoid diseases themselves, and the much-dreaded "wrong positions" of the child, must carefully avoid bending over so as to compress the abdomen. Finally, we remark that we have been thus particular in giving directions for the guidance of pregnant women, because there is an incalculable amount of suffering among this class, originating in ignorance or thoughtlessness; and because reason and observation both teach us that many, or all these sufferings can be avoided by a strict observ-

ance of the rules inculcated. One example only will be given from our own practice, to show the benefits to be derived from the course recommended. A lady under our charge is now pregnant with her fifth child, and is near her confinement. In her previous pregnancies she lived *after the general manner of women*, but still much better than many. She has heretofore had almost all the disagreeable symptoms of pregnancy, which have been much aggravated by ulceration of the womb. She has suffered from palpitation of the heart —most distressing heart-burn—costive bowels at one time, and the most violent straining and bearing-down dysentery at another—headache—swelled legs—cramps in the stomach, and many other symptoms too tedious to mention. In her present pregnancy she has followed the wholesome directions above given, and she has had scarcely a disagreeable symptom up to this time, except the morning-sickness in the early part of her pregnancy. It is now only a week or two to her confinement, and her bowels have been regular all the time—she has never been troubled with sour stomach, or heart-burn—her legs are now not the least swelled, and in short she is vigorous, lively, active, hopeful, and in the enjoyment of perfect health. Surely such examples as these, which might be multiplied, should be sufficient to induce women to abandon their destructive errors and their deep-rooted prejudices, and to yield obedience to the laws of health.

This case shows conclusively the advantages of a hygienic course of living, in preventing the many ills, regarded as unavoidable accompaniments of pregnancy. And while due attention was given to proper diet and avoidance of all stimulants and ex-

citements of every kind, the happy results were, doubtless, due largely to the frequent use of the bath; and especially the cold hip-bath, which acted like a charm in subduing any symptoms of excitement about the heart, or difficulty in breathing. And yet, Dr. Napheys in his recent work—the Physical Life of Woman—says that, "those not accustomed to bathing should not begin the practice during pregnancy, and in any case great care should be exercised during the latter months."

While we have just mentioned the propriety of caution in the use of the shower-bath, or excessively cold water; we are fully convinced from our own observation in the case reported, and in others, that water applied as we have directed, is perfectly safe, and one of our best remedies in every stage of pregnancy, and especially "during the latter months." A short cool or cold hip-bath of from five to ten minutes' duration, will do more to quiet the excitement about the heart, the headache and difficulty of breathing, which so often distress women advanced in pregnancy, than any remedy known to us. And with all due deference to Dr. Napheys, we must say, if women have never accustomed themselves to bathing before, they should practice it by all means, from the beginning to the end of pregnancy; and especially should this be done during the last month or two—using in this case the hip-bath as cold as it can be borne without discomfort, in addition to the general cold or tepid bath or "wash-down" as already recommended.

Again we cannot see how "women of a lymphatic temperament, and of a relaxed habit of body are-

always injured by the bath," as Dr. Napheys declares. On the contrary, bathing with water adapted in temperature to the susceptibilities of the system, but as cold as the re-active powers will permit, would seem to us to be highly appropriate in such cases, to give firmness to the muscular fibre, and to re-invigorate the feeble vital powers. This is certainly in accordance with the teachings of medical science, and is sustained by our own observation. Neither can we see a shadow of foundation for Dr. Napheys' assertion that "foot-baths are always dangerous" in pregnant women.

The subject of CONJUGAL RELATIONS during pregnancy is too important to be omitted. As a general rule, gestation is no bar to the enjoyments of married life, when prudently and moderately indulged. But such indulgences should be refrained from about the usual menstrual period, on account of the greater danger of miscarriage at this time. Caution should be practiced also when the wife has previously miscarried, and this caution should be carried to total abstinence during the first five months in such cases. The same self-denial should be exercised for at least a month after miscarriage has occurred.

With these exceptions, there is nothing in the condition of pregnancy to forbid the continuance of the usual relations between husband and wife.

We conclude this important subject by referring the reader to the chapter on Painless Labor, which proves that labor is not necessarily a painful process; and that the pains considered inseparable from it, are manily the result of bad habits, and neglect of hygienic means.

CHAPTER VII.

DISEASES OF PREGNANCY, OR TROUBLES IN THE CHILD-BEARING LIFE OF WOMAN.

Dropsical Swelling of the Privates.

THIS is a watery collection in the cells beneath the skin covering the lips of the privates. It generally occurs during the latter months of pregnancy. It is almost always caused by the pressure of the womb on the veins, by which the free circulation of the blood is interrupted. The SYMPTOMS are swelling, stiffness, and fullness, without any particular soreness, in which last particular it differs from the inflammation of the same parts described in a preceding chapter.

TREATMENT.—Bathe frequently with tepid or cold water; and *lie down*, if the swelling becomes very troublesome, until it subsides.

Discharges from the Vagina.

The discharges occurring during pregnancy may be bloody, watery, or mucous. The *bloody* discharge is caused in some very rare cases, by an attempt at menstruation; for though this function is suspended in the vast majority of women by pregnancy, yet a few menstruate once or twice after conception. This menstrual effort may be distinguished by its coming on at the "regular time," and by the absence of any disagreeable or alarming symptom. It ceases of itself as pregnancy advances, and requires no special treatment. The *watery* discharge is sometimes quite profuse, and is supposed to come from the "waters"

inside the womb. It is not generally dangerous, unless there are symptoms of miscarriage; and in the absence of such symptoms rest and cleanliness are all that are requisite. The *mucous* discharge is nothing more nor less than "whites" coming from the vagina. The treatment should be conducted on the plan prescribed in leucorrhœa, but there should be no great haste to check the discharge, as it is not likely to do any harm, and its sudden stoppage might cause some excitement about the womb. The safer plan will be to use simple injections of warm or tepid water.

Inflammation of the Womb.

This disease is much more common in pregnant than in non-pregnant women. Inflammation of the womb, during pregnancy, is no doubt a frequent cause of the "growing of the after-birth" to the inside of the womb. The SYMPTOMS are pretty much the same as those described under the head of "acute inflammation of the womb." The pain may be confined more to a particular spot. The *causes* are bad positions, bad habits of living, and cold. The TREATMENT is the same as that prescribed in the disease just mentioned.

Toothache.

This is a common symptom in pregnant women, occurring generally in the earlier months. With some, it is the first indication of conception. It may result from a general nervous excitement of the jaw through sympathy with the womb, or it may be produced by a decayed tooth.

TREATMENT.—When the toothache is purely nerv-

ous, it is sometimes very obstinate, and resists all our efforts. The best plan of treatment is to adopt a rigidly low diet, and to keep the bowels regulated. As local applications, the following may be tried: Chloroform, one part; sweet oil, two parts. Mix well, and rub over the painful part. Or, take the whites of two eggs; and common pepper, in powder, two ounces. Beat them well together, spread on cloth, and apply over the painful part. Alcohol held in the mouth will sometimes relieve. Should all remedies fail, and should the patient be very much worn down by pain and loss of rest, from a fourth to half a grain of morphine may be taken, which will generally give prompt, and sometimes permanent, relief. If the pain is evidently caused by a decayed tooth, this should be extracted, unless there are symptoms of miscarriage, or something of that kind, to prevent.*

Salivation.

This is another symptom of pregnancy which sometimes becomes troublesome. It is not attended with danger, and no attempt should be made to check it. The TREATMENT should consist in observing the rules of health, and in washing the mouth frequently with water.

Longings, Loss of Appetite, &c.

In the early months of pregnancy the appetite is generally weak; in the middle period it improves, and towards the last the stomach is often much disturbed in

* When there is a predisposition to miscarriage, the drawing of a tooth, or any violent shock to mind or body, may bring it on. Hence the caution. But still, we think that the pain and loss of rest from the toothache, is about as likely to cause miscarriage as the extraction.

its functions from the pressure of the womb. There is no end to the strange stories told as to the longings of women. One writer tells us of a woman who could not rest satisfied until she purchased a bite of a baker's shoulder. Another, it is said, killed her husband, made a meal of him, and salted the rest away. Others have desired spiders and other disgusting insects. And longings for chalk, ginger, spices, spirits, vinegar, &c., are quite common.

CAUSES.—There can be but little doubt that these depraved appetites are caused in most cases by a disordered condition of the stomach, resulting from bad habits in eating.

TREATMENT.—Some authorities, very absurdly as we think, advise the gratification of these strange desires, under the idea that they are natural promptings, and that the woman or child may be injured by not indulging them. We advise that they be resisted, and that the stomach be brought back to its senses, by furnishing it with proper food, and by the occasional use of a warm-water emetic, if the tongue is furred, and if there is a bad taste in the mouth.

Sick Stomach.

This is often one of the most distressing accompaniments of pregnancy. It sometimes commences a few days after conception, and continues for several weeks, recurring every morning, and then passing off. In other cases it continues all day for several weeks; and in a very few instances it continues during the whole period of pregnancy.

CAUSES.—It is generally attributed to sympathy with

the womb, but it is no doubt often aggravated and continued by improper eating.

TREATMENT.—If there is distressing sick stomach without vomiting, the stomach should be relieved by drinking freely of milk-warm water until the sickness is allayed, or until the stomach throws off any irritating matters it may contain. After the vomiting, a few sips of very cold water, or small lumps of ice swallowed, will probably give relief. The hot foot-bath may also be used in conjunction with the above treatment. The diet should be small in quantity, especially in the morning, and it should be rather dry. Dr. Meigs advises his patients to take a cup of coffee with a toast sometime before rising from bed. The coffee may be admissible as a *medicine*, and may be tried. A great variety of medicines has been recommended in these troublesome cases, such as opium, prussic acid, &c., internally; but they should never be resorted to in domestic practice. A cloth may be wet with laudanum and applied externally over the region of the stomach, or a mustard plaster may be applied to the same part. We have given relief by the administration of one drop of creasote in a teaspoonful of vinegar, weakened down with water. But, after all, the main reliance is to be placed in dieting and regulating the bowels. No more should be taken into the stomach than it will bear, if it is only a *teaspoonful* of milk or gruel. If the patient can be up, she should get out into the cool, fresh air, as early as possible in the morning. In the last months vomiting is caused, partly by the pressure of the womb against the stomach. In some of the difficulties from this source, we have seen the best effects from the cold

hip-bath, followed by a good rubbing; but whether the remedy has any effect in removing the mechanical difficulty, we are not prepared to say. The bowels, in all these cases, should be regulated by injections, and by the diet already so often prescribed.

Heartburn.

This is one of the most common disorders of pregnancy. In the present mode of living very few escape. It may be proper to say that heartburn arises from a disordered condition of the *stomach*, and that the heart really has nothing to do with it.

CAUSES.—There can be no doubt that the main cause is improper eating, the food being excessive in quantity or not of the right kind.

SYMPTOMS.—Heat, pain and fullness at the pit of the stomach, extending to the throat, and followed by sour belchings.

TREATMENT.—If there are any offensive matters in the stomach, they should be neutralized or washed away by drinking freely of warm water. The stomach should then be allowed to rest for some time. Sips of cold water may be grateful, but even water sometimes sours on the stomach. An animal diet may agree better than a vegetable one; and the rule should be, *whenever any article is found to disagree, to leave it off.* Women who will follow this advice will generally have no difficulty in getting rid of this distressing symptom. We have found ley hominy, with enough of the ley remaining on the grains of corn to give them a decided yellowness, an excellent article in such cases as these, and we can confidently recommend it, both for its wholesomeness and palatableness. No grease should be

used with the hominy. And water should not be drank in less than an hour after any meal. Magnesia, chalk, lime-water, &c., will neutralize the acid and give temporary relief; but it is better, far better, to prevent the accumulation of acid by a proper regulation of the diet.

Cramp in the Stomach and Bowels.

The *symptoms* of this disorder are violent cramping or colic pains in the stomach or bowels, or both. It is known as nervous colic, or "cramp of the stomach." The pain comes in paroxysms, with intervals of ease, and is *relieved by pressure.*

CAUSES.—These are generally some error in diet, but in some cases the pain comes on when the stomach is empty.

TREATMENT.—If there is any offending matter in the stomach, warm water should be used, as in the preceding disorder. Should this not relieve the pain, or should the stomach be empty when the attack comes on, hot cloths should be applied over the region of the stomach and bowels, and frequently changed. If this does not give relief, a mush poultice, sprinkled with mustard, may be applied. While these remedies are being used, the feet should be placed in water as hot as can be borne.

The diet should be regulated according to the rules already given, and particular attention should be paid to the bowels.

Vomiting Blood.

This occurs in some rare cases, and is to be treated mostly as other kinds of vomiting. The principal reliance is to be placed in swallowing small pieces of

ice, or in sipping very cold water. Should these and the remedies already prescribed in vomiting fail, a physician should be called.

Constipation.

This is a very common disorder among pregnant women. In the early stages it is caused by a concentration of excitement on the womb; and later, it is due partly to this, and partly to the pressure of the womb on the bowels.

SYMPTOMS.—These are headache, weight and uneasiness in the belly, and a feeling of general discomfort. The disorders of the stomach already alluded to, are often aggravated by this condition. In evacuating the bowels little hard balls are passed, or large dry masses with great straining and considerable pain. The discharges are sometimes mixed with mucus, or jelly and blood. The straining may be so great as to cause a miscarriage.

TREATMENT.—This is such a common complication of almost all the disorders of pregnancy, that the treatment has been to a considerable extent anticipated under the preceding heads. We take this occasion to warn women against the constant and habitual use of purgative medicines; for when the bowels become accustomed to them they will not act without, and it becomes necessary to increase constantly the size of the dose, or the strength of the medicines, and thus the bowels are continually teased and excited, which is about as bad as the constipation itself. The bowels can generally be regulated by diet and injections without the use of medicines; and when the latter are used

at all they should be of the mildest kind, and should be resorted to only to relieve some urgent symptom. The diet should consist mostly of corn bread, potatoes, ripe fruits, baked apples, stewed fruits, unbolted flour bread, wheaten grits, &c., &c. From a half pint to a pint of warm water should be thrown up the bowels just before each evacuation, and there should be a regular time for this. If purgatives are used at all, they should consist of magnesia, rhubarb, castor oil, &c. A wine-glassful of the following mixture may be taken every night, or every morning, according to the time fixed for evacuating the bowels: Epsom salts, one ounce; cream of tartar, two drachms; boiling water, two pints. This may be kept in a bottle, and is an excellent artificial mineral water and laxative. If pills be preferred the following may be taken: Compound extract of colocynth, two scruples; castile soap, half a drachm; oil anise, cinnamon, or cloves, two drops. Make eight pills with syrup. Dose, two or three as above.

Piles.

This is another very troublesome affection, and is generally occasioned or much aggravated by the constipation of which we have just been speaking.

The TREATMENT consists in attention to the bowels, and in frequently bathing the fundament in cold water. These baths should be short, and should be repeated whenever there is much pain or uneasiness. It is better to evacuate the bowels just before retiring at night; and after bathing, the piles should always be pushed up, and kept up, if possible.

Looseness of the Bowels.

This is a comparatively rare affection, and generally requires but little treatment. Strict attention to the diet,* which should be very light; *small* injections of cold water, and a wet bandage to the abdomen—cold or warm, according to the degree of heat—will generally be sufficient. If any medicine be needed, the following may be safely taken: Prepared chalk, a tea-spoonful; loaf-sugar, the same quantity—mix together and dissolve in ginger tea, and repeat as often as necessary. Toward the termination of pregnancy there is sometimes a dysenteric affection, attended with violent bearing-down and straining. This should be treated by injections of a very small quantity of cold water before each evacuation, and a short cold hip-bath after the evacuation, to be followed by a good rubbing, as prescribed in whites. The downward pressure should be avoided by lying down until the irritation of the bowels subsides. If the above remedies fail, twenty drops of laudanum, mixed with two tea-spoonfuls of starch, may be thrown up the bowel.

Palpitation of the Heart.

Almost all pregnant women suffer more or less from this disorder, on account of the extraordinary excitement to which the system is subjected by the wonderful processes going on within; but, like many other affections, it is caused as much by bad habits as by the

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* Rice is the very best diet in all such cases.

peculiar condition of the system. The exciting CAUSES are generally mental emotion, and disordered stomach and bowels from improper eating.

SYMPTOMS.—Violent action of the heart, a kind of fluttering, with an anxious choking sensation. The heart not unfrequently loses a beat, and then thumps quick and hard.

TREATMENT.—This should consist in a strict avoidance of all exciting causes, and especially those mentioned. The attack can generally be relieved by bathing the feet in hot water, and by placing a cloth wet with cold water over the heart. When it comes on in the last months, it is sometimes caused by the crowding upward of the womb; in such cases as these we have seen great relief from short cold hip-baths. If the general health is feeble, it should be reinvigorated by pursuing the plan prescribed in green sickness. Preparations of iron are excellent where there is much debility, but where the habit is full they should not be used. In such cases as these the diet should be very light, and as much exercise should be taken as the nature of the case will allow.

Fainting Fits.

These sometimes occur in very nervous women, particularly at the period of quickening. The CAUSES are very much the same as those mentioned under the preceding head.

SYMPTOMS.—Stoppage of the pulse, very feeble breathing, and loss of sensibility, but no spasmodic movements.

TREATMENT.—Apply vinegar and carbonate of am-

monia (smelling salts) to the nose, sprinkle cold water in the face, and bathe the feet in hot water, rubbing well afterwards with warm flannel, or with the warm hand. Air should be freely admitted, and care should be taken not to hold the stimulants to the nose too long; they should be applied only a short time, and then removed, and then re-applied. Persons should not crowd around the patient. All exciting causes must of course be avoided as far as possible, and the general health should be attended to, as directed under the head of palpitation. Never raise the patient up when the fit is on, but always lay her down.

Cough, and Difficulty of Breathing.

Difficulty of breathing occurs most commonly during the latter months, and is caused by the upward pressure of the womb, by which the lungs are crowded and compressed. In the earlier stages of pregnancy, it is caused sometimes by plethora (too much blood), or by mental emotion, errors in diet, great nervousness, &c.

TREATMENT.—If the patient is feeble and nervous, the general treatment for the restoration of the health should be pursued. If there be excessive fullness (plethora), this should be reduced by a very low diet, by pretty active exercise, and by the warm bath, or warm wet-sheet pack. The latter should be used from a half hour to an hour and a half each time, and should be repeated as often as it seems to be necessary. In all cases the bowels should be kept regular, and all exciting causes, such as tight dresses, excessive eating, &c., should be avoided. When the difficulty is caused

by upward pressure, short cold hip-baths,* followed by friction, will often give great relief. The cough, that sometimes accompanies the difficulty of breathing, and sometimes occurs independently of it, is generally caused by nervous excitement in the early stages, and by pressure in the latter months. When nervous, it should be treated by hot foot-baths, warm cloths to the chest, and warm wet-sheet packs, or warm baths. Should the cough be very violent, so as to threaten miscarriage, or should it not yield to the above treatment, a physician should be consulted; in the mean time slippery-elm water may be used, and a teaspoonful of paregoric may be taken. The cough caused by pressure is best relieved by a very light diet, by hot foot and tepid or warm hip-baths.

The cough is sometimes attended with spitting of blood. In such cases as these, cold cloths should be applied to the chest, cold acid drinks, as lemonade, vinegar and water, &c., should be taken internally, the feet should be bathed in hot water, and a physician should be sent for.

Sleeplessness.

This is sometimes a very troublesome accompaniment of pregnancy, and is caused by the peculiar condition of the system, which is often aggravated by mental emotion, excessive eating, want of exercise, close rooms, &c.

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* When there is any suspicion that the cough or difficulty of breathing is not a mere effect of the pregnancy, but symptoms of actual disease of the lungs, a physician should be consulted, before resorting to any kind of cold application.

Treatment.—Sponge the body all over in cool, cold, or tepid water, according to the feelings, just before going to bed. The wet-sheet pack, and the general warm bath, by their soothing effects, are excellent in these cases. It is said that simply wrapping a wet towel around the hand will sometimes succeed. Warm foot-baths have also a very happy effect in many cases. Very light suppers should be taken, the sleeping apartment should be well aired, and opiates should *not* be taken, except by the advice of a physician. And indeed this will very seldom be necessary, if the above directions be followed.

Low Spirits.

Pregnant women, from the peculiar condition of their brain and nerves, are very prone to indulge in gloomy forebodings, and their mental troubles are often much increased by bad habits of living, and by the awful rehearsals and the sad prognostications of ignorant old women. And, in the eloquent language of Dr. Montgomery, "how deplorable, then, must be the condition of the mind in a woman, who, led astray by the profligate from virtue's paths of pleasantness and peace, and then abandoned, is compelled to consider her pregnancy a curse, instead of a blessing, and has, in addition to the ordinary troubles of that state, to bear up against the agony of disappointed hopes, of affections misplaced and cruelly misused, to endure the present scorn of society, and the anticipation of a still-increasing shame, for which she is to find no 'sweet oblivious antidote,' of power to 'pluck from the memory a rooted sorrow,' or 'raze out the written troubles of the brain!'

No wonder that such poor unfortunates as these should die of madness and convulsions!

TREATMENT.—The bodily health should be attended to according to the directions so often given; and the mind should be hopeful and cheerful under the full conviction that all will be well, if the laws of health be observed. Let all idle fears and forebodings be banished; *live right, trust God,* and take comfort from the thought that *not one woman in ten thousand,* who will do thus, will die from the diseases of pregnancy and child-bed.

Headache.

This very common disorder is generally caused by mental emotion, costive bowels, and excessive eating and drinking. It is to be treated by avoiding these causes, and all others that are known,—by using hot foot baths, and by pouring cold water on the head, if there is any unusual heat. If there is much fullness of habit, the wet-sheet pack or warm bath (cold being applied to the head and warmth to the feet at the same time) will be found highly useful. When the pain in the head comes on just before confinement it is a threatening of convulsions, and should be met by cold to the head, a very low, unstimulating diet, fresh air, and exercise, if the condition will admit of the last. By attention to these simple directions, headache may almost always be avoided or relieved. In nervous headache, and sick headache, the following mixture is very good, but avoidance of the causes is *better.* Take salts of hartshorn, ten grains; powdered valerian root, twenty grains, or oil of valerian, ten drops; cin-

namon water, or ginger tea, two ounces. Mix and take one half, and the other half in fifteen minutes, if the first does not relieve. If tea is used, it should be cold when the medicine is added.

Hysteric Fits.

It is a very common opinion among the people that "hysterics" is only an imaginary disease, that it has no actual existence, and therefore many women, knowing that they are diseased, become offended when they are told that they have "nothing but hysterics." Sometimes the state of excitement thus produced acts beneficially, but it is as likely to do harm as good; and it should be known that hysterics is as *real* a *disease* as small-pox or measles, and that the unfortunate subjects of this disorder, instead of being treated with ridicule and contempt, should receive our tenderest care and sympathy. Women of every age, and even some men, are liable to hysteric fits; but they occur most frequently during the menstrual life, and appear generally to be connected with some excitement or derangement of the womb. Hence, we might not unreasonably infer that these attacks would not be very infrequent in pregnancy, when we take into consideration the extraordinary changes going on in the womb. And such is even the case; for, while there is nothing about pregnancy that must necessarily cause hysterics, the exciting causes are abundant, in the present mode of living.

Causes.—These are so numerous, as just intimated that we can only mention the principal. They are, a nervous temperament, idleness, effeminacy, menstrual

disorders, as suppression, difficult menstruation, "change of life," &c.; sexual abuses, mental excitement, as fear, anger, disappointment, &c.; and particularly that kind of excitement caused by reading lascivious books, and witnessing licentious scenes. To these causes may be added excessive eating and sleeping, the use of opium and tobacco; stimulating drinks, as spirits, tea, and coffee; the abuse of purgatives; and many other abuses, too common in these modern days of enervating refinements, might be mentioned.

SYMPTOMS.—The symptoms of this disorder are as numerous as the causes; indeed, there is scarcely a disease in the whole catalogue which may not be counterfeited by it. We only give the most common form. The attack sometimes comes on suddenly, but is generally preceded by a feeling of oppression, and indescribable uneasiness and anxiety; to these general symptoms may be added chilliness, flashes of heat, headache, cramps, and great fickleness of disposition, manifested by crying and laughing immoderately and without sufficient cause. The paroxysm, or actual *hysteric fit*, is generally marked by the following symptoms: At the commencement of the fit the patient feels chilly, the pulse flutters; sometimes there is an acute pain in the head, as if some sharp body were driven into it; but the most invariable symptom is an uneasy feeling in the abdomen, as if something were rolling about; this gradually extends upwards to the throat, causing a disagreeable choking sensation, and a feeling of impending suffocation. The rising of this "ball" is accompanied by a feeling of weight and uneasiness at the pit of the stomach. With these

symptoms are generally associated fainting fits and convulsive movements: the body is twisted backward and forward, the hands are clenched, the limbs are violently tossed about, the patient beats her breasts, tears her hair, screams, and acts like a crazy woman, as she *is* for the time. The paroxysm is generally terminated by a violent fit of crying, laughing, screaming, or low muttering, stupor, belching of wind, and a large discharge of clear urine. Gradually she recovers, and the system returns to its former condition.

TREATMENT. — During the paroxysm or fit, the patient should be laid down, with her head over the side of the bed, and cold water should be freely poured on until she revives. At the same time warm applications should be made to the feet, if she can be kept still enough, or the feet and legs may be well rubbed with the hand. Rubbing along the backbone is also of much advantage. The temples may likewise be bathed in cologne water, vinegar, spirits, or hartshorn, but the cold water will generally be sufficient of itself to terminate the fit. It is hardly necessary to add that all tight clothing should be loosed, and that garters, stays, and everything of the kind should be removed. During the intervals between the attacks all the causes should be avoided, the patient should enjoy pure air and bright sunshine, should exercise, and in short should follow all the directions for bracing up and restoring the general health. The general treatment recommended in green sickness will be appropriate in pregnancy; and if the fits are attended with menstrual derangements, these should be treated according to the plan laid down under the appro-

priate head. (See "Stoppage of the Courses," and other Menstrual Derangements.)

Convulsions in Pregnancy.

These are different from hysteric fits, and are more dangerous.

CAUSES.—Many of the causes mentioned under the preceding head, may predispose to convulsions; but the immediate and direct cause seems to be a rush of blood to the head.

VARIETIES.—There are two kinds of convulsions occurring in pregnancy and child-bed: the *epileptic,* or *spasmodic;* and the *apoplectic,* or stupid.

SYMPTOMS of the *epileptic* form.—Generally the fit is preceded by pain in the head, giddiness, confusion of thought, ringing in the ears, temporary loss of sight, sick stomach, &c. These convulsions are distinguished from hysteric fits by the following symptoms: there is total loss of consciousness, frothing at the mouth, flushing of the face, and more violent spasms, which come on more frequently, with only a partial return of sensibility. In epileptic spasms the laughing and crying of hysterics are never seen.

SYMPTOMS of the *apoplectic* form.—This form generally occurs in labor. There is really but little spasm or convulsion connected with it. The body may be agitated for a short time, when the fit first comes on, but this agitation, if present, is soon followed by a deep stupor, attended with perfect insensibility, and a noisy snoring breathing. The muscles are relaxed, and the limbs fall about when moved.

TREATMENT.—So far as domestic practice is con-

cerned in these formidable affections, it should consist more in the *preventive* than the curative. Strict attention should be paid to the state of the body and mind, all exciting causes should be avoided, and if there are any of the threatening symptoms described, cold water should be poured freely on the head, to be followed by a thin cloth, wet with cold water, to the same part, and hot water to the feet. If these measures do not give speedy relief, a skillful physician should be sent for immediately. The diet should be *very light* in these cases: it should consist only of gruel, rice water, and toast-water. *Threatening symptoms about the head just before confinement should never be neglected.*

Pains in the Breasts.

These pains may be purely nervous, or they may be caused by some degree of inflammation in the breasts or milk glands. They are caused through sympathy with the womb. If of a nervous character, they will be relieved by applying warm cloths to the breasts; and if there is heat or feverishness about the breasts, equal relief will be afforded by the application of cold cloths, frequently changed. The breasts may also be bathed in warm laudanum. The bowels should not be neglected.

Relaxation of the Abdomen and Ruptures.

From the great distension and relaxation of the muscles of the abdomen in pregnancy, the bowels sometimes protrude through openings, constituting hernia or rupture. This protrusion most commonly occurs at the navel, or at the natural openings near the groins.

SYMPTOMS.—A soft tumor in some part of the abdomen, which may generally be pushed back; but should it become strangulated or bound, so that the bowels cannot act, there will be tenderness of the swelling, with vomiting and obstinate constipation.

TREATMENT.—In the cases last described, a physician should be sent for. If the tumor can be pushed back, this should be done, and then a bandage should be applied to prevent its return. If the protrusion is at the navel, or any place in the upper part of the abdomen, a thin plate of sheet-lead or circular piece of adhesive plaster may be placed over it before the bandage is applied. For the relaxation which results in great looseness of the skin, constituting "pendulous belly," there is nothing equal to frequent sponging of the abdomen with cold water, followed by friction. This gives strength and resistance to the muscles, prevents the deformity of great folds in the skin of the abdomen, and relieves other unpleasant consequences of pregnancy, as we shall see hereafter.

Inability to hold the Urine.

This distressing affection may result from great irritability about the bladder, but it is not unfrequently caused by the pressure of the womb on the bladder.

The SYMPTOMS are a dribbling away of the urine, and an inability to hold the water any length of time.

TREATMENT.—This should consist in warm hip-baths to soothe the irritation of the bladder; cold sponging of the abdomen to strengthen its muscles, and thus to keep the womb up so that it will not press so much on the bladder. If these means fail, which they will seldom do, the womb may be supported by

a bandage around the lower part of the belly, while the other remedies are still used.

Difficulty in passing Water.

In this affection, which is exactly opposite to the one just described, there is pain, straining, and sometimes a total inability to pass the water. The accumulation in the bladder is very dangerous in the early months of pregnancy, as it may cause the womb to fall backwards and become wedged down beneath the prominence at the lower part of the back-bone.

TREATMENT.—The warm hip-bath should be used, as in the preceding affection; and if the water cannot then be passed, this should be followed immediately by the application of cold cloths to the lower part of the abdomen, or the cold hip-bath. The sponging and bandage may also be used, and care should always be taken not to suffer any large accumulation in the bladder, by attending to the first solicitations of nature. If the above means fail, a physician should be sent for immediately to draw off the water with a tube or *catheter*.

Cramps in various Parts.

Pregnant women are liable to cramping pains in the abdomen, back, legs, &c.

They are caused partly by pressure, partly by nervous irritability, and often no doubt by bad habits of living.

SYMPTOMS.—Violent drawing or stitch pains in the abdomen, back, or legs, coming on by spells. Sometimes there is a strong contraction or drawing of the muscles.

TREATMENT.—Pay strict attention to all the laws

of health, and rub the painful parts well with the hand, or with a flannel moistened in warm spirits of turpentine. When the legs are attacked at night, it is best for the patient to get out of bed as soon as possible and stand on the feet, actively rubbing the painful muscles.

Enlarged Veins.

These are generally seen in the legs, and are caused by the pressure of the womb, which prevents the free return of blood towards the heart.

Symptoms.—The veins may be plainly seen in the form of knots under the skin; the legs are much inclined to swell, and sores on them are very hard to heal.

Treatment.—The woman should not be too much on her feet. The abdomen and legs should be sponged with cold water, and rubbed at least twice a day. But care should be taken not to break the skin in rubbing the legs. The rubbing and sponging of the abdomen seems to strengthen the muscles, so that they hold up the womb and prevent the pressure on the veins which run upward from the legs. However the effect may be explained, we have succeeded by these simple measures in preventing enlarged veins and swelled legs in those who had previously been much troubled in this way. Laced stockings and bandages have been prescribed, but they should not often be resorted to without the advice and assistance of a physician: for if improperly applied, they will do more harm than good.

Swelled Legs.

This is a watery or dropsical swelling, caused in the same way as the preceding affection.

The SYMPTOMS are plain; and the TREATMENT is the same as in enlarged veins.

Besides the dropsical swelling of the legs, there is sometimes a general swelling of the body, or an accumulation of water in the belly or chest, or all may exist together. Such cases as these require the attention of a physician.

Abortion, or Miscarriage.

When the child is thrown off before the sixth month, it is called a miscarriage or *abortion*—after this time—*premature labor*.

CAUSES.—Miscarriages are caused by the death or diseased condition of the child, or some natural or accidental condition of the mother. Some feeble, delicate women seem to be constitutionally prone to this accident from "inward weakness." In such as these it may be brought on by very slight causes, and women thus predisposed often get into a habit of miscarrying about the same time in each pregnancy. This "inward weakness" is really whites, or at any rate, the weakness and the whites are often associated. The exciting causes of abortion are blows, falls, straining, excessive sexual indulgence, strong mental emotions, &c., &c.

SYMPTOMS.—A feeling of weariness, with aching in the back, generally precedes miscarriage. After these symptoms have continued for an indefinite period, and sometimes without them, symptoms of labor come on. These are a pain in the back, running around to the lower part of the abdomen and down the thighs. These pains are not constant, but they come on by spells, and they are attended sooner or later by a

bearing-down sensation, and a discharge of mucus or blood from the privates. In some cases there is scarcely any pain—the woman goes out to attend to the calls of nature, perhaps, and is suddenly taken with flooding, which is soon followed by the expulsion of the child. We have seen such cases as these. The child may be passed with all its coverings, or the latter may remain for some time after the child is expelled. The great danger in abortion is from flooding.

TREATMENT.—As long as there is any hope of succeeding, attempts should be made to prevent the miscarriage. To accomplish this end, the patient should be put immediately to bed. She should be placed on a mattress, and *never* on a feather-bed. The foot of the bedstead should be made a little higher than the head, by placing blocks of wood under the legs. The room should have a free circulation of air, and the bed-covering should be light. If these measures fail to stop the pain and flooding, cold wet cloths should be applied to the lower part of the abdomen and between the thighs; and these should be changed every two or three minutes, if the flooding is profuse. Should these external means fail, a short cold hip-bath should be used, and then the coldest water should be thrown up the vagina (opening to the womb) with a common womb-syringe.* Cold injections into the bowels will also be very useful, and especially if there is any accumulation in the lower part of the bowels.

* Should the patient be very much reduced from loss of blood, the hip-bath may be omitted, lest bad consequences should ensue from the effort in getting up.

If all these remedies fail, and if the bleeding is *very* free, it should be held in check by pushing a silk handkerchief up the vagina, while a physician is sent for. The *tampon*, as this stopping up is called, is a safe and very effectual remedy, and may be used by any one of ordinary intelligence without the least risk.* The handkerchief is to be gently pushed up, a piece at a time, until the vagina is filled. If the pain and bearing-down are very severe, twenty drops of laudanum may be taken. All the drinks should be cold; and acid drinks, as vinegar, lemonade, &c., are grateful and tend to check the flooding. Women who are subject to whites, should pursue the treatment prescribed under that head; and those who are prone to miscarry from this or any other cause, should be very prudent in all their habits, particularly about the time that the accident generally happens, which is oftenest from the third to the sixth month. Women who have contracted this unfortunate habit should very cautiously guard against all excitement, mental and bodily; they should wear loose dresses; they should avoid all stimulating food and drinks, particularly tea and coffee. *Moderate* exercise should be taken in the open air; but *rest* on a sofa or mattress is a powerful preventive, and should be resorted to if there is the *least threatening* about the time the accident usually occurs. In addition to these means, the body should be sponged daily with cold water, followed by friction, and a short hip-bath should be used once a day, as directed in whites.

* It should not be used, however, until all hope of preventing miscarriage is past.

Procured Abortion.

We cannot conclude this part of our work without cautioning our readers against the danger and criminality of intentional or procured abortion, which is alarmingly prevalent in this country.

Dr. Napheys says: "Hundreds of persons are devoted to its perpetration. It is their trade. In nearly every village its ministers stretch out their bloody hands to lead the weak women to suffering, remorse and death. Those who submit to their treatment are not generally unmarried women, who have lost their virtue, but the mothers of families, respectable *Christian* matrons, members of churches, and walking in the better classes of society."

Mrs. R. B. Gleason, M. D., in her useful little work, "Talks to my Patients," says: "In my early practice, I was often asked to induce abortions, for the impression seemed to prevail then, that the important part of a woman's work in the medical profession, was to prevent pregnancy, or procure abortion. With advancing years, I find myself the mother confessor of many who have done mischief, and now want to be absolved from the mental and physical misery entailed." Many other evidences as to the prevalence of this evil might be adduced, if necessary. The following quotation from the same work, will give some idea of the light in which procured abortion is too often regarded, and will, at the same time, exhibit the desperate and dangerous means resorted to for its accomplishment. A young wife thus confesses: "I had excellent health until a

few months ago, when my monthly period not coming so soon as expected, I began to be fearful I was pregnant, and as we had two little children, and my husband's means are moderate, I did not want any more just yet; so I sent to the doctor to give me some medicine to bring on my menses, thinking if I was in a family way it would do no harm, as it was only a few days over my time. The doctor said he thought I was pregnant, and it was a pity to have another baby when this one was so young, and that he would use an instrument to bring me around all right, which would do no harm; that there was nothing wrong in so doing. I yielded, and have never been well since. I have had a bad leucorrhœa, a weak back, pain and pressure in front, and I am so afraid that terrible instrument has done some harm which can never be cured; that I shall never have any more children, and then I should be so sorry. Besides all this, I have such remorse, that I cannot eat or sleep as I used to, and have lost my flesh, strength and cheerfulness of spirits."

This case gives only an imperfect idea of the terrible dangers to which women expose themselves by using means to procure abortion; but it shows how innocent women are deluded on this subject; and how men, who disgrace the name of doctor, are ready to take advantage of the ignorance of these misguided ones, and to lead them into a crime which brings with it remorse, loss of domestic happiness, disease, and in many cases, insanity and death.

And let it not be supposed, that the crime and the danger consist alone in the means used; in the in-

strument resorted to; for the use of "female pills," violent exercise, powerful purgatives and nostrums for forcing the menses, resulting in the expulsion of a vitalized germ, is just as much a crime against God and humanity, and just as injurious to the woman, remotely, if not immediately, as the thrusting of a probe into the womb. Nature will not tolerate such interference with her work, and those who thus thwart her designs must suffer from such a violation of her laws. Is there no escape from the evils which so many women suffer from excessive child-bearing? Shall they go on multiplying and replenishing the earth, when the excessive tax on their powers is hurrying them to the grave? We answer no! When the condition of the woman demands it, conception may be safely and innocently *prevented*, which is a very different thing, as we have seen, both in its moral aspects and its physical effects, from the interruption of pregnancy, or the procurement of abortion, by the use of instruments, or any other means.

The circumstances justifying prevention, and the means, have been mentioned in the first part of this work.

In conclusion, we have a word of hope and good cheer for suffering women. It is to be found in the assurance that pregnancy may be prevented when necessary, by means that are neither dangerous nor criminal; and that when pregnancy occurs, the much dreaded perils and pains of child-birth may, to a great extent, be avoided, by following the precepts contained in the chapter on the Hygiene of Gesta-

tion. We say, then, let pregnancy never be terminated by any voluntary act on your part; but once begun, let it go to its close, hoping and believing that obedience to the laws of God denouncing murder, and to the physiological laws which he has instituted for your government, will ensure peace of mind, freedom from disease, and a safe and easy delivery.

False Conceptions, Moles, or Blighted Conceptions.

These are generally shapeless masses of a fleshy appearance. They are caused by a blight or arrest of development in the child in the early stages of pregnancy.

The SYMPTOMS resemble very much those of ordinary pregnancy.

TREATMENT.—Should their expulsion be attended with flooding, it is to be treated on the plan prescribed in miscarriage. No attempts should be made at their removal, except by the advice of a physician; for nature will generally accomplish her own work without our assistance, and there is really but little danger except from flooding. In concluding the subject of miscarriage, &c., it may be proper to add that abortion cannot be prevented when the pain and flooding have been sufficiently great to loosen the connection between the child and the womb; and in such cases the only effectual plan of checking the flooding is to hasten the expulsion; therefore, when the bleeding continues in spite of the remedies prescribed, the farther management of the case should be committed to a physician without delay.

PART FOURTH.

MIDWIFERY AND DISEASES OF CHILD-BED, OR THE CHILD-BIRTH LIFE AND TRIALS OF WOMAN.

"MEDDLESOME MIDWIFERY IS BAD."—NATURE CAN GENERALLY PERFORM HER OWN WORK WITHOUT THE ASSISTANCE OF ART.—WHEN AID IS REQUIRED, IT IS ALL-IMPORTANT THAT IT SHOULD BE RENDERED AT THE RIGHT TIME, AND IN THE RIGHT WAY:—A SINGLE FALSE MOVE, OR A MOMENT'S DELAY, MAY SEAL THE FATE OF MOTHER, OR CHILD, OR BOTH.—THEREFORE, NONE BUT THE MOST SKILLFUL SHOULD BE TRUSTED IN THE PRACTICE OF MIDWIFERY.

CHAPTER I.

OF THE CHILD IN THE WOMB.

In medical books, the child before birth is commonly called a *fœtus*, and we may find it convenient to use this term occasionally.

Mode of Attachment, &c.—The fœtus is enveloped in a thin membranous covering, commonly known as the "membranes;" and these membranes are filled with water, in which the child floats. The union between the mother and child is effected by means of the *placenta*, or after-birth, and the navel cord. The *after-birth* is a fleshy mass, which is attached to some part of the inner surface of the womb; and from this after-birth extends the cord to the navel of the child. Through this cord pass the arteries and vein by which a communication is established between the mother and fœtus. The blood of the child, in passing through the after-birth, undergoes a change similar to that effected by the lungs in persons who breathe; and at the same time it receives nutritive matters, which have been absorbed by the after-birth from the mother. There are other peculiarities in the fœtal circulation, but it might be too tedious to describe them.

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* For a description of the bony parts, or pelvis, through which the child must pass, see "Sexual Anatomy and Physiology."

Diseases of the Fœtus.—The child in the womb is liable to almost all the diseases to which it is subject after birth. Children have been born with small-pox, measles, and various other skin diseases—with consumption, inflammations, &c., &c. From the intimate connection between the mother and her unborn child, the latter is very liable to be affected by anything that may make a strong impression on her, and hence, pregnant women who would give birth to healthy children, should carefully guard against all causes of disease and excitement. We have already shown that the mind of the mother has a very powerful influence over the fœtus, and that strong mental emotions of any kind may arrest its development, causing deformity or death. It may be proper, however, to add that the resemblance of the deformed child to the object causing the deformity is generally imaginary.

Signs of the Death of the Fœtus.—These are rather obscure. They are said to be a sudden cessation of the movements of the child in the womb; shrinking of the breasts; looseness, and sinking in of the muscles of the abdomen, &c. The death of the child is not usually attended with any great danger to the mother; and the subject has been introduced to reassure those who are prone to indulge in gloomy apprehensions, on account of the real or imaginary death of the child in the womb. As no air can enter the cavity in which the child is contained, decomposition does not take place very rapidly, and the dead child is generally expelled, after an uncertain interval, with pains a little heavier than those experienced in giving birth to a living child.

CHAPTER II.

OF LABOR PAINS.

CHILD-BIRTH NOT NECESSARILY PAINFUL.—The proposition that child-birth is not necessarily attended with great pain, is certainly contrary to the current belief among physicians and people; and it appears to be contradicted by the daily observations of practitioners of medicine, and by the sad experiences of suffering women all over the civilized world. Yet, we confidently believe that the truth of the position can be fully sustained by the teachings of physiology, and by the evidence of many cases of painless labor, where women have been delivered with little or no pain, when free from any artificial or stupefying influence whatever; while the brain was wide awake and active, and all the nerves fully alive and endowed with all the sensibility naturally belonging to them.

Some of the teachings of science on this subject, and some of the evidences drawn from our own observation, and from the testimony of other writers, we now propose to present for the comfort and encouragement of suffering women.

Dr. Napheys in his recent work, the Physical Life of Women, in answer to the question, "is it possible to avoid the throes of labor and have children without pain?" replies that "science answers in the affirmative?" But a little further on, we learn that his science is the administration of chloroform to blunt or annul the pains of labor. While we

would not detract from the merits of chloroform, when properly used, we must say that the science which promises health and freedom from pain without the use of any stupefying drug, is far preferable to that science which offers relief only by the use of a remedy which is "never to be used in the absence of the doctor," as our writer truly says; and which he might have added, is not perfectly safe in his hands, and which is often inaccessible on account of the absence of the doctor, or the chloroform, or both.

In the teachings of Physiology and Hygiene, we learn a "better way." Of the hygiene of gestation we have spoken in another place. What now, let us inquire, do the science of physiology and the anatomical structure of women teach us?

From Anatomy and Physiology, we learn that the nerves of the womb are derived almost entirely from the organic or sympathetic system of nerves—a set of nerves intended to preside over nutrition and circulation, and not to convey impressions to the brain.

Now it being admitted that the womb is supplied almost exclusively by this *unfeeling* set of nerves, which convey sensation to the brain only in a state of long continued excitement, or of actual disease, the conclusion follows that the womb, in a natural physiological condition, is not a very sensitive organ, and that great pain in it is no part of its physiology, but an unnatural or morbid manifestation. And daily observation teaches us that the womb has but little sensibility in a healthy state, though partially supplied by a set of nerves (the cerebro-spinal), whose office it is to convey sensation

to the brain, and motion to the muscles. Every physician knows, and many women are aware that the womb can be roughly handled, and even cauterized with little or no manifestation of sensibility when healthy; and that it may be thus treated even when diseased, without any great pain. If then, there is nothing in the nervous structure of the womb to account for labor pains, how are these pains produced? According to the theories of all writers on the subject, *pressure*, in some form, is regarded as the great source of pain in child-birth. All the explanations of such writers prove that labor is viewed by them as a mere mechanical act—as the forcible passage of a body through a narrow passage, without considering the vital condition and adaptation of the parts through which the passage is to be made.

While pressure doubtless has much to do with the pains of labor; it cannot, in itself, be the sole or even the principal cause of these pains. It is well known to all obstetricians, that the pains of *dilatation* or opening of the womb, are excessive in some women before the presenting part of the child presses on the mouth of the womb. In these cases, we must assume that the pains result from pressure on the almost insensible nerves of the body of the womb; or we must adopt the much more reasonable conclusion, that a degree of pressure which would scarcely be felt in a healthy condition, is greatly aggravated by a *morbid irritability* of the nervous system in general, and of the few sensitive nerves of the mouth of the womb in particular, the diffi-

culty in the mouth, in these cases, and in most others, being not the pressure in itself, but the reluctant yielding and stretching of parts deficient in that vital expansibility which certainly belongs to all the soft parts through which the child has to pass, and which is certainly necessary for the easy performance of the act of parturition.

This VITAL EXPANSIBILITY, or this disposition to yield at the proper time without force, has much, very much, to do with freedom from the pains of labor. And yet while all writers admit and admire the wonderful adaptation of the child, to the parts through which it has to pass, and wonder at the wise provisions of nature for the accomplishment of the great work of parturition, still these same writers speak of the act as a mere mechanical one, as before stated —as the forcible opening of ill-constructed parts, by a body not adapted to these parts either in size or shape. Hence the highest obstetric writers attribute the opening of the mouth of the womb entirely to the wedge-like pressure of the child's head, driven on by the forcible and overpowering contractions of the body of the womb; the muscular efforts of which, finally, after a terrible struggle, gain the victory over the reluctant and obstinate fibres of the mouth.

But, as is truly stated by Carpenter, the opening of the mouth of the womb and the other soft parts, is a *vital* and not a mechanical process; the vital properties of the parts involved, are changed by an unhealthy or non-physiological condition of those parts, and as a consequence, the mucous secretion is

checked or arrested, the tissues are rigid and unyielding, the nervous sensibility is greatly increased, the vital expansibility is absent, and the result of all this is, that parturition is translated in truth as well as in theory from the domain of physiology to that of pathology and mechanics, and violent overpowering force, attended with atrocious and unnatural pains, is required to overcome the resistance of parts morbidly irritable, and wholly or partially deficient in vital expansibility. Hence the causes of the excessive pains of labor may be summed up in a few words, viz.: morbid irritability of the nervous system in general, and of the nerves of the womb in particular, with deficiency or absence of that vital expansibility or self-opening which is necessary to easy delivery.

The *degree* of pain will, of course, be proportioned to the nervous sensibility.

Most of the causes of nervous irritability, such as late hours, tight clothing, insufficient exercise, stimulating drinks, over indulgence in high-seasoned, too concentrated food, inordinate excitement of the passions, and excessive drugging have been noticed in the first part of this work, and certainly these and other causes are sufficiently wide-spread to account for the prevalent derangement of health, and the painful labors of our women.

In addition to this physiological argument, we could prove that parturition is not necessarily a painful process, by quoting examples of absolutely painless labors from almost every obstetric writer. But instead of this, we will only make some com-

parisons between the labors of the different classes of society, concluding with some examples of painless, or very easy and speedy deliveries, from our own practice. The contrast between the parturitions of women in civilized and savage life proves conclusively that the difficulties in child-birth are not necessarily a part of the process, but the result of habits of living.

While all civilized child-bearing women cannot be said to be in a state of actual open disease, there cannot be a shadow of doubt that the habits of civilized life tend greatly to beget that morbid irritability and that preternatural susceptibility to pain which have so much to do with the pangs of parturition. We all know the difference between the parturitions of women in civilized and savage life. We are all familiar with the fact that Indian women really have no lying-in; that they "fall behind for a little on their journeys through the forest, deliver themselves, and shortly make up to their husbands, and continue their journey with their offspring on their back." Among the South American Indians, "a mother, immediately on her delivery, takes her child, and going down to the nearest stream of water, washes herself and it and returns to the usual labors of her station." And even in civilized life, we all know that the pains and dangers of child-birth are diminished in proportion as women approach plain, healthful, natural habits of living. Those who are in moderate circumstances, who are equally removed from the depressing influences of extreme poverty and the enervating, destructive in-

dulgences purchased by wealth, have easier labors and more speedy recoveries than either of the extremes of society; and the poorest often escape the "primal curse" much better than the pampered daughter of idleness and luxury. Hence, the negro women of the Southern States, who were compelled to lead an active life, and live on plain food, with minds undisturbed by corroding cares, had, as every Southern physician knows, much easier labors, and were much less exposed to so-called accidents, than their mistresses.

Now nature being governed by fixed and uniform laws in all her operations, if it can be proved that even one woman, in a natural condition, without the aid of any pain-destroying drug, has been delivered with little or no pain, the proof is conclusive that parturition is not necessarily a painful process. It is admitted that not only one but many have been thus delivered.

Why then, may not all healthy, well-formed women have comparatively, or even positively painless labors, by obedience to the laws of health?

We have seen that there is nothing in the structure of women to forbid this, and that whole races of women escape the pains and dangers of labor to a great extent by simple, natural habits of living.

The following cases are adduced from our own practice, to demonstrate the good effects of a proper hygienic course in preventing or greatly mitigating the pains of child-birth.

Case I.—Mrs. ———, aged nineteen; first labor eighteen hours; expulsive stage about six hours;

pains numerous and severe; no preparatory course of treatment; general health good, development good; no malformation from tight lacing or close fitting dresses. Second labor twenty-four hours; child breech foremost; expulsive stage five hours; no preparatory treatment. Third labor fourteen hours; expulsive stage three hours.

All these labors were pretty severe, but were uncomplicated with any serious difficulty. After the last, she had an attack of "milk-leg," followed by ulceration of the womb, with great debility and impairment of health, as manifested in palpitation of the heart, dyspepsia, and many distressing nervous symptoms. During this pregnancy, and in previous ones, she had most of the long and distressing list of the "diseases of pregnancy," described in another part of this work.

In her fourth pregnancy, she was subjected to the hygienic course recommended in the chapter on the Hygiene of Gestation, and she escaped most of the ailments of pregnancy, while parturition was effected in three hours from the beginning of labor, with an almost painless expulsive stage of half an hour, the work being accomplished with only three or four contractions.

In her fifth pregnancy she had the same or even greater immunity from the diseases regarded as inseparable from this condition, the treatment being similar to that in the fourth pregnancy.

In her sixth labor, the mouth of the womb was opened in twelve hours, with *painless contractions*, and expulsion was accomplished in twenty minutes

after the womb opened, with six strong and almost painless contractions. And this after an interval of twelve years, during which she had not borne a child, and had suffered more or less with ulceration of the womb.

Case II.—Mrs. C——, aged about seventeen years; first child; short stature; firm tissues; closely built, but well formed. She was subjected to the preparatory hygienic course already recommended, and was delivered in about six hours from the beginning of labor, with a very short and almost painless expulsive stage. So little complaint was made, that the child came near being born without our knowledge, though in the room all the time. And the patient did not suppress her complaints, for she expressed great surprise that her labor was over so soon, and with so little pain. There was no flooding, scarcely a stain of blood, no bad smell nor other disagreeable accompaniment of child-bed. Indeed one of the most pleasant things connected with the hygienic treatment, is the remarkable purity of the secretions in those who have followed it.

Case III.—Mrs. S——, aged about eighteen; well formed; good general health; treatment hygienic during pregnancy; labor six hours; expulsive stage short; only one or two contractions finished it, and she expressed herself as feeling scarcely any pain, moved in two weeks on the cars. In her second pregnancy she again followed the hygienic treatment, and was delivered in three or four hours from the beginning of labor. Expulsive stage only about

twenty minutes, and almost painless; no accident of any kind; recovery good.

In her third labor, the preparatory treatment was the same, and she was delivered in three-quarters of an hour from the first pain. This time there were but nine contractions in all; seven effected opening of the womb, and two, which were scarcely felt, accomplished expulsion.

In her fourth pregnancy she was travelling for many weeks, and could not use hygienic means to advantage, having to omit the most important part of it, bathing, during the last two months. In this confinement her labor was twelve hours long, and more severe than previous ones.

Case IV.—Mrs. F——, aged twenty-five or thirty; good health; well formed; third labor. Reports other labors severe. Treatment in this third pregnancy, hygienic. Labor four or five hours; expulsive stage about half an hour; very little pain; no accidents of any kind; everything pure and sweet.

Case V.—Mrs. H——, aged about eighteen; first child; form and general health good; but she had been delicately raised in the enjoyment of wealth and ease. Treatment during pregnancy, same as in the other cases. Labor six hours; expulsive stage three-quarters of an hour; scarcely any pain; no hemorrhage or disagreeable symptom.

There are some points in these cases worthy of special notice.

The first case embraces six labors, three with hygienic treatment during gestation, and three without. The latter were respectively eighteen,

twenty-four and fourteen hours in duration, and by no means free from pain. The last three labors of the same woman under hygienic treatment, were almost entirely painless: and two of these were accomplished in three hours, while the other, though occupying twelve hours in opening the mouth of the womb, was unattended with pain in this, the first stage, which is generally the most painful and trying to women.

And, be it remembered, that after the opening of the womb, the child was born almost without pain, in the marvellously short space of twenty minutes. And this too, after an interval of twelve years without bearing a child, the failure to conceive being due to chronic inflammation of the womb. The second and fifth cases were first children. These cases will show that even young women, in whom labor is usually more severe and protracted than in others, can be delivered with but little pain under a preparatory course of treatment.

The third case was also a woman with her first child; and this was only six hours in duration, and almost painless; while two other labors in the same women, after a hygienic course, were short and easy —one being three or four hours long, and the other only three-quarters of an hour; and in both cases the pain amounted to almost nothing. The short period in which delivery was accomplished, in most of these cases, proves that a long time is not necessary to safety in child-birth, as many writers contend. But these cases show conclusively that when the parts are fully prepared by bathing, and other

hygienic means; that when the excessive rigidity and nervous irritability are allayed by such strengthening, soothing, and relaxing measures as we have recommended, then the expulsive contractions, and the vital expansion, the spontaneous opening, and the expelling power act in beautiful harmony like the parts of a well-constructed and well-oiled machine; and thus may the wonderful act of bringing a child into the world, be performed in twenty or thirty minutes, without the least danger of rupture or tearing, flooding or other terrible accidents, which are described in medical works. And what is better still, with little or no pain, and without resorting to any stupefying drug.

But now for the objections to all this. Many are ready to say this looks very reasonable, and the argument seems to be very conclusive; but then the doctors all think that labor must be attended with pain, and they are ready to prove this by their daily observations, by the experience of almost every child-bearing woman, and by the Bible itself—that unanswerable argument. As to the doctors—all we have to say is, that they are very poor witnesses in such cases; for their observations are confined almost exclusively to cases more or less diseased, or where some complication in labor demands their attention. Besides this, very few of them have directed their attention to the hygienic management of such cases, relying as they do, like the writer quoted, mainly on drug medication to remove existing difficulties. In addition to all this, their minds are imbued with all the prejudices of an early education,

which almost ignores hygiene; while they are to a considerable extent, like others, under the influence of a mistaken theology, which seems to fix its seal of approbation on what they see and read every day. It is not strange then, that doctors should be slow to believe that labor can be made painless by any means except some drug that will blunt or subdue the nervous sensibility. While admitting then, theoretically, that child-birth is a natural physiological process, and while numerous facts sustain the position, that labor is not necessarily painful, they yet regard it, practically as a morbid process, because they generally see it in this light.

And as to the women, to whom can they look for instruction, except to their doctors of law and divinity—their physicians and their preachers? And do not these all teach that women must suffer in child-birth, because daily experience and the Bible declare it in unmistakable terms?

The great objections to be met, then, are the individual experiences and observations of women themselves, and the teachings of doctors and theologians. We have already spoken sufficiently of the evidence of physicians on this point. As to the experiences of women, they are worth but little as to what constitutes a healthy natural labor; for most of them are either diseased or in an unnatural condition, having lived in habitual violation of all the laws of health, not knowing their efficacy and importance, relying alone on drugs, and submitting with confiding faith and pious resignation to the teachings of their medical and religious instructors.

Let us now consider the teachings of the Bible on this subject.

It may be well to premise that we believe in the Bible as a rule of action, as an authority in morals, and as a system of spiritual truths and doctrines. But we do not believe in that mistaken piety which would array the Bible in opposition to every discovery in science. This book was never intended to teach Anatomy, Physiology, Astronomy, Geology, or any of the sciences. Yet, we think that there is nothing in the Bible incompatible with the teachings of true science, when the book is confined to its legitimate sphere, and properly understood and interpreted. What, then, of that *curse*—that DREADFUL CURSE—"In sorrow shalt thou bring forth children!" This is often quoted "in pain," etc. But the word sorrow does not necessarily include physical pain; and we might find abundant sources of sorrow for Eve in her mental condition—in the anxieties and forebodings that would naturally fill her mind on the birth of a child into a world alienated from God, and cursed with the terrible evils of sin. But not wishing to take advantage of a mere verbal quibble, we freely admit that many portions of the Bible express in strong terms physical suffering in connection with child-birth. A few of these may be given: "Fear took hold of them there, and pains, as of a woman in travail." "They shall be in pain, as a woman that travaileth." "Therefore, are my loins filled with pain; pangs have taken hold of me, as the pangs of a women that travaileth."

These quotations might be greatly extended, for the Bible has many such expressions.

It is admitted then, that women suffer, grievously suffer, in parturition, and that they have thus suffered since the introduction of sin into the world. But this suffering of woman is certainly not due to any original defect in her physical organization, for this must have been perfect as it emanated from the plastic hand of the Almighty. No one can doubt that the women of the present day have the same system of nerves, muscles, and bones as the first woman, and, therefore, if the first woman could have been delivered without pain, in the perfection of her physical organization, as all are ready to admit, so may her daughters escape the pangs and perils of child-birth just in proportion to their obedience to the physiological laws, which have been violated by the introduction of sin. In other words, women may promise themselves exemption from the pains of child-birth, as they approximate original physical perfection by obedience to the laws of health, disobedience to which is the cause of their physical degeneracy and consequent sufferings.

These sufferings then, are not due to any original defect of organization, nor to the direct effect of the curse inflicted on our erring mother, but to the violations mentioned. For we have seen that this organization must have been perfect before the fall. And surely no one will be so absurd as to assume that God made any change in the physical structure of man or woman by pronouncing a curse on either.

The natural or physiological laws were unchangea-

ble from the beginning; they were instituted before the fall, and were not changed in a single "jot or tittle" by the fall, but remain in all their integrity and force to the present day.

But while the laws which govern man's physical being are not changed, his *relation* to those laws is changed, by reason of sin, which causes him to contravene those laws in numberless ways. And thus does he suffer the penalty which follows as an unavoidable sequence, and he or she, the man or the woman, suffers individually, reasonably and righteously in this way, and not as a *whole race*, through the mysterious and inexplicable operation of a harsh, indiscriminate, and vindictive curse.

Whenever men and women cease to transgress the laws of their organism, whenever they, by obedience to those laws, place themselves in proper relation to them, then they are visited with blessings and not with curses; then the terrible curse on woman is no longer operative; then she can fulfil the great command to "multiply and replenish the earth," without pain, as the perfection of her unimpaired and unperverted physical organization abundantly qualifies her to do.

The curse on woman, then, must be regarded as a salutary restraint, as an incentive to right living, and as a simple but solemn declaration or prediction of the evils that would befall her by reason of violation of the laws instituted in wisdom and goodness for her well-being. All the evils arising from such violations were, of course, foreseen by Divine Wisdom. They were announced beforehand, and

they have been literally, sadly fulfilled, not by the direct withering influence of a curse, but by the voluntary, self-inflicted agency of woman, who, so far as her physical being is concerned, still remains subject to the great primal law of the race, "*obey and live, disobey and die.*"

This law of works still prevails in the physical and the physiological world. For moral transgressions we have an atonement, but none for violations of physical and physiological laws. The penalty must follow the infraction. If a man throws himself from a height, the law of gravitation must bring him to the ground. If a woman narrows her hips, weakens her muscles, poisons her blood, and unduly excites her nerves by bad habits of living, she must suffer the consequences in disease, and in painful and difficult labors. Were it otherwise, the whole wise economy of the universe would be subverted, and still greater evils than those that now exist would befall the human race, by the introduction of disorder and confusion, and the removal of that strongest incentive to good, and that most salutary restraint from evil, which are to be found in a knowledge of the fact that our temporal welfare can be secured only by obedience to the laws of our being.

How much more reasonable such teachings as these, how much more in accordance with Divine Wisdom, than the doctrines of a misguided theology, which would make all the evils that afflict the human family the direct consequence of a curse inflicted on our first parents, a curse whose blighting,

pain-inflicting power can by no possibility be avoided.

We trust that we will be excused for enlarging so much on this subject, when it is remembered that it is the most important and interesting one that could engage attention. And one, we may add, concerning which there is a vast amount of ignorance, prejudice, and false teaching. Could the erroneous notions on this subject be corrected, could women be convinced that there is even a *bare possibility* of escaping the pains and perils of child-bed, we cannot believe that they would longer remain satisfied in ignorance, supinely submitting to the multiplied evils to which they are now exposed, regarding them as necessary and unavoidable, as a righteous infliction of Heaven on the whole race of women, on account of the transgression of the frail mother of mankind. And *surely*, SURELY, if the veil of ignorance could be removed, if women could be convinced that freedom from the pangs and dangers of child-birth could be purchased by obedience to the laws of health, they would not knowingly and wilfully subject themselves to the sufferings to which they are exposed in the present state of things.

Finally let us add, that the views herein expressed are not hastily formed, but are the result of personal observation and thorough investigation. They were presented before a meeting of the Georgia Medical Association, read in the Atlanta Academy of Medicine, published in the Atlanta Medical Journal and in the transactions of the above association; and though these views are contrary to the teachings of

most physicians and clergymen, though they are new to most of the world, no attempt has been made to confute them. Neither do we believe that they can be successfully met.

CHAPTER III.

NATURAL LABOR.

WHAT IS NATURAL LABOR?—This question may be answered by saying, that all labors are natural that are terminated by the unaided efforts of nature. But writers generally apply the term "natural" to those cases in which the head "presents," or comes down first. It should be known, however, that the coming down of the feet, knees, or breech of the child, is not necessarily attended with any very great difficulty or danger, so far as the *mother* is concerned. The natural presentations occur in the vast majority of cases, and mothers may therefore take consolation from the fact that there is not, perhaps, more than one chance in a thousand for them to have one of the much-dreaded "cross-births," or wrong presentations.

THE PRESENTING PART.—Presentation, in midwifery, means the part of the child that comes down and engages in the opening, or mouth of the womb. In most cases the head presents, which is the most favorable position. This part can generally be distinguished by a little experience, and all women should endeavor to inform themselves on this point, so that they may know when all is right, or when assistance

is necessary. The head may be known by its roundness, its hardness, and by the soft place between the bones called the "mould of the head." A few examinations will be worth more in determining the presentation than a whole volume of descriptions; and, as before intimated, there is no great difficulty in this, provided the mouth of the womb is considerably open; yet it is proper to add that it is not near so easy as most people suppose, when only a small point of the child can be touched with the tip of the finger. Those who are unacquainted with such things seem to think that it is the easiest thing in the world to tell which end of a child comes foremost, and therefore they are often inclined to underrate a physician's knowledge because he cannot always answer their eager inquiries on his first examination. Head cases will generally terminate without any assistance, if there is nothing wrong on the part of the mother; and the same may be said of cases where the feet, knees, or breech of the child comes down first. But as the danger of losing the child is great in these cases, a physician should always be called as soon as they are discovered.

TIME FOR LABOR.—This important and highly interesting process generally commences about nine calendar months, or two hundred and seventy or eighty days from the time of the last appearance of the "courses."

The time may be very closely approximated as follows: Suppose that a woman begins to menstruate on the 12th April, and menstruates four days; from 12th April to 12th January is nine months; now add four

days for the time in which menstruation was going on, and it gives 16th January; and confinement may be looked for within eight days from this time, that is, from 16th to 24th of the month of January.

CAUSES OF LABOR.—The efficient cause of labor is the contractions of the womb; and these contractions are assisted by the voluntary or bearing-down efforts of the woman, in which the muscles of the abdomen, &c., are brought into action.

SYMPTOMS OF APPROACHING LABOR.—Labor sometimes comes on suddenly, without any warning; but nature generally gives sufficient intimation of the wonder she is about to perform. The womb settles down for several days beforehand, and this relieves the crowding of the stomach and lungs: many, or all the dyspeptic symptoms vanish, if they had previously existed; the breathing is easier, and the woman feels lighter and better. But while the stomach and lungs are relieved by the descent of the womb, the bladder and lower bowels are more pressed upon; and hence there is a frequent desire to pass water, with inability to retain much in the bladder: the bowels are troubled with griping and straining in evacuating them, while the discharges are generally small. Another common symptom is painless contractions of the womb; these are attended with a squeezing, drawing sensation, but with no particular pain. The immediate forerunner of actual labor is generally a pretty free mucous discharge from the womb, called a "show." As the labor progresses, this becomes tinged with blood.

Stages of Actual Labor.—The "first stage" of labor embraces the time occupied in dilating or opening the mouth of the womb; and the pains accompanying this stage are called cutting or grinding pains. These pains, when *true*, begin very low down in the back and extend around to the lower part of the belly. They are not constant, but there are intervals of ease. They are generally short, pretty severe, and not very well borne by women, who are often impatient and restless under them, indulging in gloomy forebodings, and not unfrequently making louder complaints than they do in the succeeding stage when the pains are really greater. Persons with a little experience can always distinguish this stage by the manner in which the patient complains. And it is highly important that all women should acquire this knowledge, as the woman in labor does not generally require any assistance in the first stage; nor is it often necessary to confine her to bed until this stage is about completed. In the first stage the complaints consist in noisy exclamations, and calls upon all around for help: such expressions as these are quite common: "Oh, I shall die! *do* help me! Can't you do something for me?" &c., &c. In the second stage, yet to be described, the manner of complaint is entirely different: instead of noisy complaints or screams, there is a low, suppressed straining grunt, like a person lifting a heavy weight. It is difficult to describe these things on paper; but those who will use their opportunities of making observations to advantage, will seldom be

misled in distinguishing the stage of labor by the manner of complaint. Not unfrequently the stomach becomes affected in the first stage, and there is vomiting; but this is rather beneficial than otherwise. If the finger is introduced into the vagina, or passage to the womb, during this stage, the mouth of the womb will be felt more or less open, and during the pain a tense, smooth body will be felt pressing into the circle formed by the mouth. This is the "bag of waters;" and when this is felt, and when at the same time the womb can be felt drawing or contracting when the hand is placed on the belly, the evidence is conclusive that labor has actually begun. The "bag of waters" gradually enlarges the mouth of the womb, and generally about the time that the mouth is fully open, the "waters break;" but this sometimes occurs before the mouth is fully dilated; and at other times the waters do not break until about the time the child is born. The mouth of the womb having been dilated in the first stage, the second, expulsive, or bearing-down stage begins. In this the pains are more frequent, they stay on longer, and are attended with a bearing-down sensation, which gradually increases until the woman holds her breath and makes a violent straining effort during each pain; and while the pain is on, the face is full and flushed. In the intervals between the pains, the woman is often drowsy and disposed to sleep. This stage is ended by the birth of the child, and is followed by an indescribable sense of ease and a gushing overflow of joy which often shows itself in tears, and which can be known only to *mothers*. The

third stage embraces the delivery of the after-birth. This is sometimes expelled with the child, but generally it remains for a short time, until the womb, having taken a resting spell, gently contracts and forces the after-birth out of its cavity.

CHAPTER IV.

MANAGEMENT OF NATURAL LABOR.

"*Meddlesome Midwifery is bad.*"—This is a maxim worthy to be inscribed on the bedpost of every lying-in woman; and it should be ever present to the minds of all physicians and people who may be called to attend women in labor. In a natural labor there is really but little to be done. The most essential thing is to know *when* any difficulty arises, so that it may be relieved by timely interference; but so long as things go right, the great remedies are *time* and *patience.* When an examination has been made, and the head is found to present or come down, we may generally rest satisfied that Nature will accomplish her work without our assistance. Women frequently make loud outcries, and become very impatient in the first stage of labor, exhorting all around them to "*do something*" for them; but we could not interfere to hasten delivery at this time, if we would, without resorting to drugs and forcing medicines, which are very rarely necessary, and which should never be used, except by the advice of a physician. All stimu

lants, then,—even "*gunpowder tea*,"—and all such notions, should be rejected as useless in most cases, and injurious in many. The practice of stretching and pressing a woman, which is resorted to by some ignorant old women, cannot be too strongly condemned; for it is likely to result in inflammation of the womb, and other dangerous troubles. Instead of giving stimulating drugs, pressing, stretching, &c., let the woman be encouraged by the assurance that, in all probability, all will be well, and that she must trust in God, and exercise patience.

Position of the Woman.—During the first stage she may sit, stand, lie, or walk, according to her fancy; and no attempt should be made to confine her to one position. And even in the second stage, strict confinement to bed is not necessary until the pains become strongly bearing down, and the head of the child begins to press upon and push out the soft parts. When the head is thus felt, or when the pains are very strong and forcing, it is best for the woman to take her bed lying on her back, with the knees drawn up. Many women have a notion that they cannot be delivered lying down, and that they *must* sit up. This is a practice that is very objectionable; for women who are weakly, or who are predisposed to flooding, or falling of the womb, are much more liable to accidents when delivered sitting up. The notion above alluded to should therefore, as far as possible, be resisted.

Making the Bed.—A mattress should always be preferred to a feather-bed. Over the mattress several folds of cloth, or old quilts should be placed, so that

they will be under the hips, to receive the discharges. Another plan is to double the mattress, and turn it back, letting the hips rest on some quilts, doubled, and placed on the mat or sacking-bottom. This protects the bedding more effectually, but it is objectionable, because it requires the removal of the woman soon after delivery, when it is desirable that she should rest quietly. When a piece of oil-cloth, or a nicely-tanned skin, is placed beneath the quilts, it affords an excellent protection, while the whole can be removed by simply raising the hips. The bedstead should be so placed that there will be no difficulty in passing round it to give any assistance that may be necessary; and it should be so arranged that it will be convenient to use the right hand.

The Chamber Diet, Drinks, &c.—So numerous are the errors connected with the management of lying-in women, that we can scarcely lay down a single rule without coming in direct contact with some foolish popular absurdity, or some destructive custom which has been sanctified by age, and transmitted, with unwavering confidence, from generation to generation. One of the greatest and most prevalent of these errors is keeping lying-in women too close. Thousands of women have been hurried to the grave through fear of "catching cold." This popular bugbear has given rise to the ruinous practice of shutting up women in labor in close-crowded rooms, and smothering them up in bed-clothes. We would not advocate or encourage any rash exposures, but we are certain that women in labor cannot well have too much fresh air and that there is much more danger of catching a

fever than a cold. The lying-in chamber should be well aired, then. Another error, almost if not quite as destructive, is the fear of debility, which leads to the administration of wines, cordials, and stimulants during labor. These are very rarely necessary; and as the system is already in a high state of excitement, they are much more likely to do harm than good. Water should be the only drink, except in cases of extreme faintness from flooding, or some depressing influence. The above remarks on drinks apply with equal force to diet. Unless the labor is very protracted, it is best to take no solid food at all, for the nervous energies are all concentrated on the womb, the functions of the stomach are suspended for the time, and consequently the food taken cannot be digested, and of course can do no good in the way of imparting strength, while it may do much harm, by adding to the existing excitement.

THE BOWELS AND BLADDER.—If there is reason to believe that there is an accumulation of hardened matters in the lower bowels, or if these have not been well emptied a short time before the commencement of labor, an injection of warm water or warm gruel should be used in the first stage, and repeated until the bowels act. This will prevent a good deal of difficulty and uneasiness towards the termination of labor, and when the pains are lingering and ineffectual it often revives them; and is one of the few means that may be safely used for making the pains stronger, and for hurrying the delivery. When the head of the child presses down on the neck of the bladder, it often becomes impossible to pass water; the bladder

should therefore be emptied before the labor progresses far enough to prevent the evacuation.

Moral Management.—This is the most important part of the treatment of an ordinary labor. Everything should be done to remove all sources of vexation and annoyance; and in doing this, even the whims and caprices of the woman should be respected, so far as this can be safely done. At the same time every effort should be made to animate her hopes, and inspire her with confidence. Only those that are necessary should be permitted to remain in the room. "More than these would render the air impure; some could not bear the spectacle of suffering without reflecting the impress of it from their countenances; others could not keep their tongues still, would always have a supply of stories of dreadful cases, and a thousand imprudent things to say; at one while, that Mrs. Such-a-one was delivered of a monster, or Neighbor Such-a-one died with convulsions; at another, they delivered Mrs. So-and-so with *instruments*, &c.; from tenderness, or real interest, or affectation, they grow quite sad, and lament over the possible consequences of the lying-in; and whisper, or talk in a low tone, or at least they sit gloomy and silent, and merely throw a furtive glance of pity towards the woman in labor, who, as she is almost always disposed to make an evil interpretation of all that is said and done about her, every moment looks for her sentence of death in remarks only half-heard, in gestures, or in the expression of sadness and compassion she observes in her attendants." Who has not witnessed scenes similar to the one so graphically described by the celebrated

French writer, Velpeau? And who can estimate the harm that has been done in this way? In our efforts to inspire confidence we should carefully guard against rash and delusive promises: instead of telling a woman in labor that she will certainly be delivered by a *certain time*, she should be assured (when this can be done) that "all is right," and that she will, in all probability, be safely and speedily delivered. This course will prevent disappointment and loss of confidence.

Assistance in the Last Stage.—We will now suppose that the first stage of labor is completed, that the mouth of the womb is fully open, that the pains are strong, and "bearing down," and that the head of the child is beginning to swell out the soft parts of the mother. What is now to be done? Most writers direct that the *perineum*, or space between the front and back passage, should be supported by pressing it up with the hand. This, when done properly, is doubtless beneficial, and tends to prevent that distressing accident known as rupture, or tearing of the perineum. But at the same time it is rather a delicate little operation, and if not properly performed is more likely to cause than to prevent the accident mentioned. We cannot, therefore, advise unskillful persons to resort to this manœuvre. We can, however, suggest a plan that we have found to be as good, and perhaps better, while it can be practiced without the least difficulty or risk. This is simply to place the hand beneath the buttocks, as close to the point of the backbone as possible, and then *to press the buttocks together*. This draws the skin around from towards the hips, and by giving

more room, of course lessens the danger of a rupture. Nothing more is necessary during this stage, unless it is to hold the patient's hands, and encourage and assist her in her bearing-down efforts. But she should never be encouraged to make these efforts until she feels a strong desire to do so, and as soon as the pain ceases she should desist from all effort and rest until the pain comes on again. Many women exhaust themselves in fruitless efforts by disregarding these rules, and they are often induced to do so by ignorant attendants. When the head of the child is born, it should be held in the hand until the body is expelled, but no attempt should be made to twist it round in any way; it should simply be held gently up, while it is allowed to turn in any direction it will.

MANAGEMENT OF THE CHILD.—When the child is born the cord may be cut and tied immediately, provided the little stranger cries lustily. But should it appear feeble, or should it not breathe, it should remain united to the mother by the cord, and the hand should be wet in cold water and slapped on the back and breast, and a little water may be sprinkled in the child's face. Should these measures not succeed in restoring it, the nose of the child should be held, while the mouth of the attendant is applied to its mouth, and then the breath should be blown in pretty strongly once or twice into its mouth. As soon as the breath is blown in, in this way, the mouth should be removed from the child's mouth so as to give it a chance to breathe out. We have succeeded, by the persevering application of these means, in

restoring children who showed no sign of life for a half-hour or more after birth. The cord should be tied about two inches from the navel, and then another tie should be made far enough from this to allow a division of the cord between the two. This division should be made with a pair of scissors, and then the child should be placed in a fold of cloth and removed.

DELIVERY OF THE AFTER-BIRTH.—After the birth of the child, the next thing requiring attention is the delivery of the after-birth. This is not generally attended with any difficulty; and yet many women have been ruined for life by rashness and ignorance in finishing this the last part of labor. In delivering the after-birth, the rule is, *never to pull at the cord unless the woman has some pain and bearing-down, and the womb can be felt contracting when the hand is placed on the lower part of the belly.* The only exception to this rule is when the after-birth can be plainly felt in the vagina outside the mouth of the womb. When this is the case it may be removed without waiting for a pain. When the womb contracts it may be plainly felt by placing the hand on the skin over the womb, and it feels very much like the head of a child. This contraction generally comes on within an hour after the birth of the child, and very often within fifteen minutes. While it is on, one hand should be *gently* pressed on the outside over the womb, while the other hand draws as gently on the cord. As soon as the pain goes off, the pulling should cease until another comes on. After waiting from fifteen minutes to half an hour from the birth of the

child, if the womb does not contract, or in other words if there is no pain, the hand may be wet in cold water, and applied suddenly to the skin over the lower part of the belly. This will in all probability cause contractions, when the after-birth may be safely removed. It is well for women to know the dangers to which they are exposed from imprudent and forcible attempts to pull away the after-birth, and especially when the womb is not contracted. The principal of these are *inversion* or turning of the womb wrong side out, and falling of the womb. We have seen many women who have been ruined beyond remedy by the unskillful manœuvres of ignorant persons in delivering the after-birth; the least violence should never be permitted, and if there is the slightest difficulty a physician should be sent for without delay. And while we are in favor of *educated* women as midwives, we take this occasion to add, that no woman can safely commit herself into ignorant hands in any case; and though most cases of labor terminate without interference, yet where assistance is necessary, it should be rendered with promptness and skill: a *single false move, or an hour's delay, may prove fatal.* In view of these facts, and in the absence of educated midwives, it is our honest opinion that it would be better to call a prudent and skillful physician in all cases of midwifery; for only one of experience and education knows *when* and *how* to give assistance.

CHAPTER V.

MANAGEMENT OF WOMEN AFTER DELIVERY.

How they are generally managed.—The sufferings and dangers to which women are exposed, after delivery, from numberless conceits, whims, and prejudices, originating in ignorance and miseducation, are far greater than all the perils of natural labor. They are generally kept too warm, and are often thrown into a fever through fear of "catching cold." This, together with the pulling, pressing, and stretching, to which they are not unfrequently subjected in labor, is no doubt often the cause of inflammation of the womb, and the much-dreaded child-bed fever. Cleanliness is often too much neglected, through this same fear of cold. As incredible as it may appear, we have known women to go *nine days* without washing the hands, face, or any part of the person, and without changing the clothing! Those who thus manage have a stench arising from them that may sometimes be detected even before entering the house, and which would seem well calculated to breed disease not only in the woman herself, but in all her attendants. Women in child-bed are generally overfed and over-physicked. They are required to eat more than the natural wants of their systems demand, under the idea that they have to "eat for two;" and they are dosed with all kinds of slops, drugged, sweated, steamed, purged, and sometimes puked and bled, with the view of regulating the milk and the "cleansings."

As a part of the physicking routine, they must have a dose of salts or oil on the day of confinement, or the day after, by all means, and as a matter of course. On the second or third day they must have another dose of salts for the milk-fever, caused by the over-eating; and a few days after this they will, in all probability, be subjected to a dosing or steaming, to bring back the "discharges," which have been checked by mismanagement, and so on to the end of the chapter. Now, with very few exceptions, this is all wrong; if women will live right, and follow the rules of health, before confinement, and those now to be given, they will find that they can get along much better, and have a much better "getting up" without all this drugging and dosing.

Directions for Women after Delivery.—The thing first needed by a woman, after the anxiety and fatigue to which she has been subjected, is *rest*. Just so soon as the worst-soiled things can be removed, and a bandage can be applied to the abdomen, she should be allowed to remain perfectly quiet, and to sleep, if she will. She may lie in any position that she prefers; it is all stuff about confining a woman to her back, or either side. In cases of great exhaustion, the removal of the soiled things, and the application of the bandage, should be delayed until the system rallies; and in all cases it is better to defer making any great changes in the clothing for a day or so after delivery. The object is not to guard against "cold," but against unnecessary fatigue and exertion. A few words as to the bandage:—this is designed to insure a firm contraction of the womb, and thus to avoid all danger of flooding, while it affords comfortable sup-

port to the muscles of the abdomen, and tends to prevent "pendulous belly," or a loose, flabby, wrinkled condition of the abdomen. Some writers deny that the bandage will accomplish these ends, but we are satisfied that it has its advantages, and as it can do no harm when properly applied, we recommend it to our readers. It may be made simply of a strip of home-spun or cotton jeans, about half a yard wide; or, what is better, it may be prepared beforehand, by making it with gores in the bottom, so that it may fit over the hips. This prevents the slipping up, which is one of the greatest difficulties in using the bandage. This difficulty may be effectually overcome by having a strip or roll of cloth to pass between the legs, and fasten to the bandage before and behind. The bandage, having been thus prepared, should be applied over the womb, and a folded towel or piece of cloth should be placed under the bandage, and immediately over the womb, so as to compress it. The bandage should not be applied tight enough to feel uncomfortable, but just so as to afford moderate and comfortable support. After what has been said about air, it is hardly necessary to say that a lying-in woman should have "plenty of it." The room should be well aired, but at the same time strong currents should be avoided; because such exposures might injure *any* one, and *not* because women recently delivered are necessarily more susceptible of cold than others. The bed-clothing should not be too heavy; oppressing women in child-bed with an excessive weight of covering is a great evil, arising from the destructive fear of "cold." Cleanliness is absolutely essential to

the health and comfort of lying-in women. Except in cases of flooding, &c., there is no necessity for the cold injections and the cold bandages, used so freely by the Hydropaths; yet cold water may be safely used for washing the face and hands, and tepid injections into the vagina, and even tepid or lukewarm hip-baths may be resorted to in ordinary cases, not only without injury, but with advantage. But whether you use the hip-bath and injections or not, at any rate *keep clean*, by washing with water slightly warm. The diet of women in child-bed should be rather light, but nourishing. Until the secretion of milk is fully established, and all excitement from that cause has passed off, the diet should be rather dry, consisting of corn-bread, rice, dry toast, crackers, hominy, &c. And whether a very dry diet be used from the beginning or not, it should be adopted without delay, if the breasts seem likely to secrete more milk than the child can draw off. In cases where the milk is scant, or where all excitement from this secretion has passed off, milk, water, gruel, chocolate, and hot-water tea may be added to the diet. But in our opinion the less that lying-in women have to do with coffee and "store tea" the better.

Now, as to the physicking, we have this to say: As a general rule, *the less the better*. It is all a mistake to suppose that the bowels must be moved very soon after delivery. The lower bowel is often somewhat paralyzed from the pressure to which it has been subjected, and it requires time to recover its tone. The bowels should be attended to, and kept regular during pregnancy by a proper diet, and they should be well

emptied just before or during labor, by the use of warm-water injections, unless they act sufficiently of themselves, which they are very apt to do. When thus managed, there will be no occasion to use any means to move the bowels sooner than the second day after delivery; and then simple injections only, of warm water, or warm soap-suds, should be used. These should be repeated every hour or so, until "something comes away," or until they fail to empty the bowels, which will not often be the case. Should a persevering use of these measures fail, then a dose of salts, oil, or rhubarb may be taken, but there need be no great hurry about resorting to these, unless there is feverishness, uneasiness about the bowels, or something requiring their early evacuation. The objections to the too early use of purgatives are these: the getting up and the irritation of the bowels may give rise to fainting, flooding, piles, and falling of the womb, while there can be no possible advantage, as an offset to these dangers, except in some cases of disease; and in such cases as these the advice of a physician should be sought.

How long should a Woman remain in Bed?—This will vary according to circumstances. It is all a notion that a woman must lie up just so many days or weeks; some may get up safely the day after delivery, and others would run a risk to get up when "the month" is out. As a general thing, healthy, hearty women may be up and about before a month is half out, but all useless risks should be avoided. Whenever there is a feeling of giving way, as if something were "about to drop down," after being on the

feet, the woman should return to her bed; and all attempts at walking should be made gradually and cautiously. This is more particularly necessary in those who have been troubled before confinement with "whites," and falling of the womb.

CHAPTER VI.

SOME OF THE DISEASES AND ACCIDENTS OF LABOR AND CHILD-BED.

It is not the design of this work to give instruction as to the management of all the difficulties and complications that may arise in labor and child-bed; many of these can be safely intrusted only to those who are thoroughly educated, and no others should be allowed to attempt any of the more difficult operations in midwifery. But accidents often happen which might prove fatal before assistance could be obtained, and fortunately many of these can be safely committed to domestic management, at least for a time, until other aid can be procured. Of such we shall briefly treat.

Flooding.—This accident may occur before confinement, before the birth of the child, after the birth of the child and before the delivery of the after-birth, or after the child and after-birth have both been delivered.

The *symptoms* of flooding are a free discharge of

blood from the vagina, paleness of the face, weak and quick pulse, faintness, swimming in the head, noises in the ears, weakness of the stomach, &c., &c.

TREATMENT.—There are some remedies that are adapted to all cases of flooding, while additional means are necessary under certain circumstances. All cases may be safely treated on the plan directed in miscarriage. The woman should be confined to bed, or rather to a mattress; the room should be cool, airy, and quiet. The drinks should be cold and acid; in short, all the remedies prescribed in miscarriage are appropriate; the *tampon* or plug should be used without hesitation, if cold cloths and all other remedies fail. Should the flooding continue, and should the symptoms be alarming, a physician should be called without delay, for in some cases the flooding can be checked only by hastening the delivery of the child, or after-birth, as the case may be. The after-birth sometimes grows over the mouth of the womb; in such cases as these, nothing can avail but the skill of a physician.

WRONG PRESENTATIONS, OR CROSS-BIRTHS.—Whenever it is discovered that the cord comes down first, or that any part of the child presents except the head, a physician should be called without delay. Foot, knee, and breech presentations are not necessarily dangerous to the mother, but there is great danger that the child will be lost for want of breath, before the head can be delivered, after the body is born, and the circulation between the mother and child is arrested. Therefore, these cases are no exception to

the rule, *send for a physician whenever any part of the child comes down first, except the head.*

Convulsions, or "Fits."—These are among the most frightful and dangerous complications of labor; and as their treatment should always be committed to a skillful physician, we only refer to what has been said in the chapter on "Diseases of Pregnancy." Until a physician can be obtained, pour cold water freely on the head, and keep the feet in hot water if possible.

Derangements of the Lochia, and After-pains.—Any change in the lochia, or "cleansings," is often a cause of much anxiety to women. But there is generally but little occasion for uneasiness on this score. Sometimes the discharge stops, in consequence of child-bed fever: in such cases as these the pain, fever, and other symptoms, will engage the attention and require the attendance of a physician. Some women have more of this discharge, and some less: therefore, women should be governed more by the *effect* than by the actual quantity. Should the discharge be scant, or should it even stop entirely for awhile, nothing need be done to restore it, unless there is feverishness, pain, or fullness about the womb, or some other unpleasant symptom. The useless anxiety of mind, and the harsh measures resorted to, to restore the discharge, often do more harm than good. Should anything be required, it will generally be sufficient to apply cloths wrung out of hot water over the womb, or to use a warm hip-bath. Should the "cleansings" be rather free, the woman should be very quiet, she should remain in bed, with light cover-

ing, drink cool acid drinks, and avoid all kinds of excitement. Should this not be sufficient, the services of a physician will be required. Any offensiveness about the discharges can be prevented or removed by injecting and washing well with warm water and soap. After-pains are caused by the contractions of the womb; and as these contractions prevent flooding they are really salutary. Should the pain be excessive and persistent, it may generally be relieved by the application of warm cloths, as directed above, or by the use of warm poultices. Laudanum is often resorted to in these cases, but it should not often be used in domestic practice. The following powder is very good, and safer than any form of opiate. Powdered camphor half drachm, saltpetre one drachm. Divide into six equal parts. One every hour until relief is obtained.

CHILD-BED FEVER.—This is one of the most formidable diseases to which lying-in women are exposed. It consists in an inflammation of the womb, lining membrane of the belly, &c., and is generally caused by some mismanagement, or bad habits of living. The most frequent exciting causes are to be found in over-eating, indulgence in stimulating drinks, and in keeping too close. Among the people, it is generally attributed to that great bugbear and scape-goat *cold;* but it is far oftener caused by *heat,* and the other things mentioned, than by cold. The domestic practice in such cases is confined mostly to *prevention,* which, when properly practiced, is almost always successful, and that is a great deal more than can be said of the practice of the best physicians, for the mortality

has been frightful. The actual treatment of this disease should be confined to the use of warm water injections, warm foot-baths, cold to the head, if there be much heat, and a dose of salts if the bowels be very costive. These remedies may be used until the arrival of a physician, to whom the further management of the case should be committed.

Inflammation of the Breasts, and Sore Nipples.—These are very common and disagreeable affections in the present mode of living. The sore nipples may be to some extent unavoidable, but nine-tenths of the cases of "broken breasts" are caused by mismanagement and bad habits of living. Here again, "cold" has to bear the blame; but heating, stimulating, and excessive handling and eating have much more to do with inflamed breasts than cold has. To avoid them, live on a light dry diet, as prescribed under the head of "Directions for Women after Delivery;" continue to live thus until the milk excitement and all hardness about the breasts are fully past, and have the breasts well drawn with a nipple-glass, or what is better, with a human mouth. Dr. Bedford recommends a young pup in such cases, and there can be no doubt that this is superior to most breast-pumps. In addition to this, melt together equal parts of beeswax and tallow; have a cloth large enough to cover the whole breast, dip this in the mixture, and apply as warm as it can be borne. This should be warmed and reapplied every time the breast is drawn; and the cloth should cover the nipple instead of having a hole through it. This protects the latter, keeps it moist, and is one of the very best remedies

for sore nipples. This cloth softens the breasts, and one of its greatest advantages is that it prevents the rubbing and handling that often cause them to inflame. Should the breast still remain hard, with "lumps" about it; if there is no redness or tenderness about these lumps, then apply the following liniment: Take sweet-oil, two parts; spirits of hartshorn, one part. Fold a piece of flannel several times, moisten it in the liniment after shaking it well, and then apply over the hard places in the breast, and hold a warm iron over the flannel for ten or fifteen minutes, or until the breast sweats freely. Should the liniment smart or redden the skin much, it should be weakened down by adding a little more sweet-oil. This application should be made at least three times a day until the lumps disappear, or until the breast becomes red and painful from the progress of the inflammation. The cloth first prescribed should be applied after the use of the iron, &c. That is, the cloth coated with wax and tallow. Should these remedies fail (which will rarely be the case, if they are resorted to early with a proper diet), then they must be left off and the following plan substituted. Should the skin become red and the lumps sore and tender, and especially if there be feverishness, with a throbbing pain in the breast, then take broken doses of Epsom salts, so as to keep the bowels well open; and apply cloths wet in cold water over the inflamed breast, and change them every half minute or minute, according to the amount of inflammation, until it is subdued. Should the pain and inflammation be very great, the cloths should be very thin and exposed to the air; but should the inflammation be less violent,

it may do to cover the wet cloths lightly and not change them quite so often. In making this prescription we know that we come in direct conflict with the strongest kind of prejudices; but we know that these prejudices are unfounded in most cases, and we are satisfied that there is nothing so likely to subdue inflammation of the breast as cold applications. Everybody has something to "scatter risings;" but after inflammation has set in, the only way to scatter a rising is to subdue the inflammation, and we know of nothing so well calculated to do this as to avail ourselves of the direct cooling effect of cold water. We have thus treated breasts after warm poultices and other "scatterers" had been used without effect; and though the inflammation had progressed too far to prevent the formation of matter, yet the pain ceased almost instantly, and the cavity in the breast was no doubt much smaller than it would have been under the usual warm-poultice "scattering" treatment. Before a breast inflames, rubbing with stimulants, &c., may scatter the rising or remove the lumps; but *after these become inflamed, all such things are worse than useless, and should be wholly abandoned*—while *warm* applications should never be used to an *inflamed* breast until all hope of preventing the formation of matter is past. Let us be distinctly understood. At first, when there are lumps in the breast, without redness or pain, then gentle rubbing and warm stimulating applications may open the milk-ducts and cause the lumps to disappear; but even in these cases there can be no doubt that the breast is often made to inflame by the very means used to scatter it. Every one that comes

in has some favorite remedy which must be tried; one prescribes *poke-root* poultices, another *onions*, and so on through the whole list of stimulating "yerbs," many of which would cause a perfectly well breast to inflame. Others are very partial to stimulants combined with rubbing, and they prescribe whiskey, brandy, spirits of turpentine, and all kinds of liniments, which together with the rubbing and handling are well calculated to make the breast rise. Beware of these things, and be assured that the rising cannot be prevented by other means if the diligent use of the liniment and cloth first prescribed fail. And should inflammation take place, then there is nothing that can scatter the rising but something that will subdue the inflammation; and there is *nothing* that can do this more effectually, and more safely than cold water. In using this, the *feelings* will be a safe guide; and should great chilliness of the whole body come on, the cloths can be changed less frequently, the breast can be more excluded from the air; or the application can be discontinued entirely, and warm mush-poultices substituted when the formation of matter or "coming to a head" becomes unavoidable. But even in these cases, if the cold water gives great relief to the pain, and if there is nothing to require its discontinuance, it should still be used in preference to warm poultices; for the cavity will be smaller and the discharge less. We would not hazard our reputation by giving the above treatment for inflamed breasts, were we not moved by deep sympathy with those who are exposed to this most painful affection, and were we not fully convinced that the plan recom-

mended is at least as safe as any other, and the most certain and agreeable.

Besides the cloth prescribed, the following wash may be used for sore nipples—we have found it to be very good: Take moderately strong red-oak bark tea three tablespoonfuls, laudanum a teaspoonful. Apply to the nipple with a soft cloth, after drawing the breast. If it smarts very severely, the strength can be reduced by adding a little water. If the cloth is not used, the nipples may be anointed with fresh cream or olive oil after this application. It is a very good plan to harden the nipples before confinement, by washing them in alum water.

Milk Leg.—This is a soreness and swelling of the leg coming on after delivery. It is an inflammation *without redness*, this inflammation involving the blood-vessels, lymphatics, &c., of the womb. The milk has nothing to do with it; and as it is an inflammation (though there is no redness), it should be treated very much on the same plan as other similar affections, with the exception of the local application of cold water, so useful in other forms of inflammation. From the peculiar nature of this affection warm applications seem to afford most relief, in the acute or first stage. The local treatment in this stage should consist in steaming the limb, by pouring water on a hot brick placed underneath the leg, while the latter is covered with thick blankets to retain the steam. After the steaming, the leg should be well rubbed with warm whiskey or brandy; and these applications should be repeated every three or four hours, or oftener if the pain be great. After the inflamma-

tion subsides, and the woman gets about, the leg often remains larger than before, and it is sensitive, achy, and easily affected. In this state we know of nothing equal to cold water, followed by a good rubbing. The water should be applied once or twice a day, by sponging the limb off with a wet cloth; and the rubbing may be done with the hand or with a coarse towel or piece of grass-cloth. Should the limb be very sensitive, the water may be used a little warm at first. This is a safe and a most excellent plan of treatment, as we have proved in our own practice; it acts by stimulating the diseased vessels into a new and healthy action. In addition to the local treatment prescribed, women with milk leg should live on a low diet until the inflammation subsides, and if the bowels are costive they should be kept open by broken doses of Epsom salts.

We should have said, that in the peculiar sensitive condition of the leg after it has been affected, the application of water is very apt to increase the aching, but this is no evidence that it is likely to do harm; and the disagreeable feeling will gradually disappear, if the limb be *well* rubbed after each application of the water. It should be rubbed until it is all in a glow, the rubbing need not be very hard, but it should be *very brisk.*

PART FIFTH.

THE HYGIENE AND PRINCIPAL DISEASES OF CHILDREN, AND THE NURSING LIFE OF WOMAN.

WHAT HAS EACH OF US TO DO WITH "THE SLAUGHTER OF THE INNOCENTS?"

CHAPTER I.

HYGIENE OF INFANCY AND CHILDHOOD—THE MATERNAL LIFE OF WOMAN.

Transmission from Parents—Influence of Mother's Milk.

As has been seen in another part of this work, the offspring partakes of the nature of both parents, each one concurring in furnishing the elements of the new being. But the mother has the greater modifying power over these elements after conception, because the life of the child is *part of her own* until its birth; the circulation, the very life-blood of both being commingled up to the time that the new being is ushered into the world. And even after this, when the child has to some extent, an independent existence, it is nourished by the milk of the mother, a secretion that is much influenced as to quantity and quality by her mental and bodily condition, and which must, of course, exert a corresponding influence over the child. And the transmitting and modifying power of parents, above alluded to, embraces not only *original* qualities or peculiarities, but extends also to those that are *acquired* by indulgence in bad habits on the part of the parents.

The offspring is composed of the *very essence* of each parent as he or she is *actually constituted at the*

The articles in this chapter are republished with some additions, partly from the first edition of this work, and partly from our "Health Department" in Godey's Lady's Book.

time of conception. Thus we see that the health and the moral and the physical constitution of the child depend, to a great extent, on the health and the mental and bodily state of the father or mother, at the time the infant germ is sprung into life; and that the continuance of its health, and even its future disposition, are greatly influenced by the health and state of mind of the mother during pregnancy. Some examples of this are given on page 280.

And after the birth of the child, the same controlling power is exerted by the mother, through her milk, which is subject to great changes from bad habits, or any causes which tend to impair her health. At the same time, it is liable to be poisoned by the direct introduction into the blood of stimulants, and narcotics taken as medicines; or by improper food, want of exercise, or any other habits which derange the secretions.

How can a mother expect to rear healthy children when her stomach, brain, nerves, blood, and every part of her body is affected by the excessive use of tea, coffee, spirits and snuff?

And how can gluttonous whiskey-drinking and tobacco-chewing and tobacco-smoking fathers beget healthy children? Is it possible for a child to be healthy when it is begotten by disease from disease, when it is nourished by disease during its sojourn in the womb of a diseased mother, and when it continues to drink in disease from this mother in all the earlier parts of its life? No, the decree has gone forth and cannot be abrogated, that parents who violate the laws of health will not only suffer in their own persons, but that their iniquities will be visited

"upon the children unto the third and fourth generation."

For if actual disease be not transmitted, there will be a hidden weakness inherited from the parents that will render the unfortunate child extremely subject to the invasion of disease, while it will sink under attacks through which it might otherwise have safely passed. And even if the child fortunately escapes or resists inherited disease, it can hardly escape contracting disease from the poisoned milk of an unhealthy mother.

But we cannot enlarge on this subject, but must rest satisfied with these few hints, which will at least show the importance of obedience, on the part of wives and mothers, to the hygienic precepts contained in this work.

One word only as to parental responsibility. The responsibilities of parents in this matter are of the gravest character—when properly viewed they are *awful;* and it is high time for them to begin to ask, *What has each of us to do with this "slaughter of the innocents?"* For, it cannot be denied that many of these children are murdered—ignorantly, it may be, but nevertheless murdered. It will not do to say that God ushers thousands of children into the world every year for the express purpose of removing them that same year. It is true, that God may make this evil subservient to good, by the wise adaptation of his Providence in special cases, as he did the sin of Joseph's brethren; yet, when we violate the laws of health we murder ourselves and our children; and unless God mercifully overlook our ignorance, our case is indeed an awful one.

Washing and Bathing Children—Dressing the Cord.

The first thing after the removal of the child from the mother is the washing. This should be done with simple warm water, to which a little soap may be added, if the child is much coated over. But in such cases, it is better to grease the skin thoroughly with sweet oil, butter or lard, before washing, and not try to remove all the coating at first, for fear of irritating the skin too much. But the child can hardly be made so perfectly clean in this way, as to render the washing unnecessary, as intimated by a late popular writer. Neither is there any danger of cold from the use of water of a proper temperature, and in a room sufficiently warm, as the same writer asserts.

Children should be accustomed to the use of water from their very birth, using it at first milk-warm, and gradually reducing the temperature as they become accustomed to the bath. This bath should be repeated every day.

We are aware that the notion is quite prevalent that children, like pigs, thrive best in dirt. Now we do not think it possible to keep the little fellows as nice as a new pin, without subjecting them to restraints and annoyances that would more than counteract the benefits to be derived from cleanliness, however desirable and important this may be. What we advocate is simply this: Let them run, romp, roll, kick and tumble during the day, allowing them all the freedom compatible with a due regard

for life and limb. Every night, let them be washed all over, let the clothing worn during the day be laid aside, and let them be put to bed in clean, dry night-clothes.

Infants—say for the first month of their existence—should be washed in water milk-warm. After the first month, if the child is stout and hearty, the temperature of the water should be gradually reduced until the water used for the nightly ablutions is about the temperature of ordinary well or spring water when freshly drawn. Cold water, with a little soap, is sufficiently cleansing, while there is nothing to equal it in its tonic, reactive, and invigorating effects on the whole system. The skin is not only freed from all impurities and the pores opened, but the reactive glow following the application of the cold water causes a strong determination or rush of blood to the cutaneous vessels, thus driving out through the open pores all hurtful matters that may have accumulated in any part of the body. This reactive action of cold water is particularly well calculated to prevent any undue flow of blood to the mucous membranes; and hence cold bathing is the best of all protectives against coughs, colds, croups, bowel-complaints, and all that long list of much-dreaded diseases that are so fatal to infancy and childhood.

In the use of cold water as directed, no harm can result, with due attention to the strength and the reactive powers of the child; but care should be taken not to *overdo* the thing. The temperature of the water should be reduced by degrees; and, should

chilliness, coldness of the surface, paleness of the face, languor, or depression continue for any length of time after the bath or washing, warmer water should be immediately substituted, and used until the reactive powers become stronger. On the contrary, should the cold water produce an agreeable glow, a pleasant, diffusive warmth, and a rosy blush over the whole surface, it may be continued, not only without injury, but with the most happy effects on the health and happiness of the child.

Children thus judiciously managed will, as a general rule, be lively, healthy and sweet-tempered, and, so far from dreading cold water, will be as fond of it as a duck, and about as little likely to be injured by it as any aquatic fowl or animal. In short, next to exercise and pure air, the best thing in childhood is cold water, when judiciously used. As to the mode of application, the form of a bath or immersion is preferable. The body should be immersed up to the arm-pits in a basin or tub, and gently rubbed with the palms of the hands, say from three to five minutes. The body should be then dried as quickly as possible with a moderately coarse towel, by passing the towel rapidly, but lightly, over the whole surface, until a glow of redness is perceived. The clothing for the night should then be put on without delay.

The advantages of a bath are that the body is less exposed to the chilling effects of cold air, the water is applied more thoroughly to the whole surface, and the child is not subjected to the disagreeable process of being dabbed and scrubbed with a cold, wet rag,

which, by the way, is one of the greatest troubles of infancy, and something well calculated to give any one fits of hydrophobia. Too well do we remember the weekly scourings of a rough and relentless nurse, in the form of a strapping negro woman, who, with both hands, *exercised* herself on our skin as she would have done on a wash-board; and had these scrubbings been repeated every day, instead of every week, there is a strong probability that this corporosity would have been minus the usual covering.

It should be borne in mind that a cold bath should not be used soon after a meal or while the body is fatigued. At least an hour should intervene between the meal and the bath, and the body, when exhausted, should be allowed sufficient time to rest and recover its natural condition before cold water is applied to the surface. Yet it should at the same time be remembered that moderate exercise, even to perspiration, but *not* to fatigue, is one of the best preparations for a cold bath, and, except friction, after the bath, the best of all means to secure vigorous and speedy reaction.

It is hardly necessary to add that, besides the nightly ablutions above advocated, strict attention should be given, during the period of infancy, to the speedy removal of any accidental impurities about the clothing or body. Finally, we conclude with a quotation from an old writer, which we hope all mothers will commit to memory. "I consider bathing," says he, "as the grand arcanum of supporting health, on which account, during infancy, it ought to be regarded as one of those sacred maternal duties

the performance of which should on no account be neglected for a single day."

But to return to our baby.

After washing, the next thing is DRESSING THE CORD. This simple operation is thus performed: Take a piece of soft cotton or linen cloth, cut a hole in the centre for the remains of the cord, and pass the latter through the hole. The cloth may be greased where it touches the skin. This piece of cloth may be large enough to turn up and wrap around the cord, or the latter may be enveloped in another piece of cloth. Over the whole apply a soft "belly band;" but be careful not to have it too tight, lest it cause the child to throw up its milk by compressing the stomach. It might also interfere with the breathing. Children are often, doubtless, injured by inattention to this little matter.

Clothing of Children.

In the dress of infants and older children the three great essentials are *lightness*, *warmth* and *looseness*. It should be light so as not to oppress by its weight; warm, because children cannot generate heat like older persons; and loose, so that every part of the body may move and grow without the least restraint. Children should not be kept too warm—a common error. Many physicians advise flannel next the skin; this is objectionable, because it excites the tender skin too much. As a general rule, it is better to have a soft cotton or linen garment next the skin, and the woollen covering over this.

The arms and legs of children should be well cov-

ered. The "hardening" process has destroyed many children. What sense is there in exposing the arms, legs and breasts of children when these parts are always to be covered in after life? unless, perchance, it may be necessary for a *girl* to display her fair proportions at some evening party.

Caps for babies used to be quite common, but the injurious custom has, we think, been abandoned. It is to be hoped it will never again be resumed.

Head and Hair of Infants.

The prevalent practice of bathing the heads of infants in spirits or some other stimulating wash should be discontinued, because it can do no good, while it must cause unnecessary pain and a degree of irritation that is very likely to result in disease of the tender scalp. All that are needed to cleanse the scalp are soap and water and a soft brush. The brush with the water will remove any accumulation of dandruff; and in the use of the brush there is less danger of scratching and irritating the scalp than there is with a comb. The hair, both in boys and girls, should be kept short until they reach the age of eight or nine years. This will conduce to cleanliness; it will save a vast deal of trouble and vexation in the way of combing and washing; and, by keeping the head cool, will serve to counteract the strong predisposition to brain affections to which children are so liable. By thus managing the hair of children it will be smooth and glossy, sores and disgusting accumulations on the scalp will be prevented, trouble will be saved, and the health and comfort

of the child and the happiness of the mother will be vastly promoted.

Food and Drinks of Children.

Very soon after its birth the child should be put to the mother's breast, for several reasons. This causes the mother's womb to contract, and thus obviates the danger of internal hemorrhage. The mother is also protected from the evils arising from a sudden and inordinate accumulation of milk, while the child can take the nipple better than when the breast is distended, and the latter is not so likely to become sore.

But the greatest benefit accrues, perhaps, to the child by keeping sugar teats, fat meat, etc., out of its mouth.

Diet before Weaning.—Milk is the only natural and proper food for infants and young children; nature does not afford, nor can art supply, a substitute. As a general rule, the mother's milk should be the only food of an infant until the teething is completed, or, in other words, until nature indicates her readiness to dispose of more solid nutriment, by the appearance of a full set of teeth. And let it not be supposed for a moment that milk is *drink only*, and not food; for by reason of the butter, casein, and other solid ingredients that enter into its composition, it, when in a natural condition, contains all the elements necessary to the growth and development of every part of the child; it contains everything requisite for building up the nervous, muscular and every other tissue, and also earthy matters and salts

to give solidity to the bones; and nature, in her wise arrangements, has not neglected to furnish this highly compound nourishment with heat-generating materials for the purpose of warming the bodies of her tender charge, through the chemical changes that occur in the act of respiration.

The mistaken notion that nature does not understand her business, that the food furnished by her is not sufficiently nutritious, and that we can improve on her handiwork, has been largely influential in originating and in perpetuating the ruinous practice of stuffing young children with all kinds of vile compounds of flour, meat, wine, etc., in the form of pap, panada, soup, gruel, and—what not? Under this absurd and unnatural process of feeding, the little unfortunate, whose stomach is entirely incapacitated for such things, gets sick with a bowel complaint; has gripings, disturbed sleep, watery discharges; loses flesh, becomes jaundiced, and dies, a poor, pitiful, emaciated skeleton, notwithstanding, or rather because of all the nourishing compounds with which it has been so diligently plied; and, alas! the evil is not traced to its proper source, but is laid on teething, worms, cold, "thrush;" or the deluded mother, in her mistaken piety, consoles herself with the idea that it is a "mysterious dispensation of Providence," for which she is in no way responsible, and to which she must submit with Christian resignation. And thus do the little innocents perish day after day and year after year, and thus are one-half or more of the children who come into the world every year removed that same year.

It appears to us that reason and observation would convince every one that we do not exaggerate on this point; and we trust that many will be induced to abandon the practice on which we have animadverted; but we fear that there are some who are so blinded by the prejudices of education, and by a false process of reasoning, that they will still persist in their errors. Some will be ready to exclaim: "Why, the man is mad; my mother fed me on fat meat, and gave me whatever I wanted, and I am alive and well even to this day; and more than this, I am the mother of children, and these have been raised after the same fashion, and they, too, are alive and hearty."

But, my dear madam, have you never known men to drink spirits and use tobacco all their lives, and yet, by virtue of a vigorous constitution, be able to resist for a long time the influence of these destructives, and live to an old age? And what does all this prove? Certainly not that alcohol and tobacco are not injurious. These cases only show that some constitutions can withstand destructive influences better than others, while there is every probability that those who long resist them would in their absence live to a very great age. In short, they only prove that some people are harder to kill than others. So of your children; because your stuffing and improper feeding do not kill them, it is no proof that such things are not wrong; and though the children may have survived and gradually become accustomed to the unnatural excitement to which you have subjected them, we venture the assertion that in most cases nature violently rebelled against such a course,

and that she was conquered through great tribulation.

In proof of this, we ask you to cast your minds back on the past, and to review those sad days and nights of weary watching, when you hung over the couch of little Johnnie, and Charlie, and Susie, when they had that "dreadful bowel complaint," or when they writhed in convulsions, or sunk in the deep su por of brain fever. And let me ask, Why all this? *Are convulsions, and bowel complaints, and brain fevers natural to children?* must they have them as a matter of course? Surely not—and yet how few escape these diseases, or some others!

These questions and answers lead us inevitably to the conclusion that the vast majority of the diseases of infancy are the result of mismanagement, and among the numerous errors that exist, improper feeding is perhaps of all others the most destructive.

As before stated, the mother's milk, or diluted cow's milk, is all that is required for infants until the teething has made considerable progress; and where the mother or nurse is vigorous and healthy, and the child appears to thrive well, we think it decidedly best to confine it to milk until the teething is completed. Most of the difficulties of the much dreaded and too often fatal period of teething are caused by stuffing children with meat and all kinds of improper food; of this we shall have more to say hereafter. If any food besides milk is allowed the first year, it should be of the lightest and most unirritating nature, such as rice, arrowroot, tapioca, crackers or biscuit crust grated in milk, and, per-

haps, occasionally chicken soup or some other animal broth, not too much impregnated with grease. These may be admissible, and even requisite in some cases; but we repeat that as a general rule it is best and safest to restrict infants the first year to milk. The above remarks apply more especially to food. In the way of drinks, water alone is admissible, and this should not be withheld. During the first four or five months, the watery part of the milk will generally be sufficient to allay an infant's thirst, and especially if its system is not excited by any improper food on its own part, or on the part of its mother; but under the excitement and discharges from teething water is most grateful, and, indeed, indispensable.

Infants often Suffer for Water, and for want of knowledge of this fact, ineffectual attempts are often made to silence their cries by feasting or nursing, when a few spoonfuls of cool water would act like a charm in quieting the little sufferer. This should be borne in mind by mothers; and, as children may experience thirst at a very early period, and as water may be safely given to them at all ages, under almost all circumstances, care should be taken to supply them with it.

When it has been decided to wean an infant, the quantity of food should be gradually increased, by way of preparing it for the change; but still the diet should be plain and simple, moderate in quantity and restricted to a few articles, and pretty much such as those above mentioned.

Diet after Weaning.—After a child has been weaned, it should be restricted for some time to the

light, bland, semi-fluid *preparatory* vegetable diet already recommended. After continuing for three or four months the rice, arrowroot, grated crackers, and other things mentioned under the head of "Food and Drinks before Weaning," soft-boiled eggs, rice pudding, hominy, and syrup or molasses may be added by way of variety.

It is a common error to have the food of infants too concentrated, too much divested of those husky, innutritious matters that are necessary to the proper performance of the functions of the bowels. After the laxness and irritation from teething have subsided, Graham flour, mush, hominy, potatoes, squashes, stewed or baked apples, etc., etc., are much better than fine flour, farina, starch, fine sugar, and all such concentrated food so much used.

Another error very prevalent is the mistaken notion that growing children require a great deal of meat to sustain them. Many mothers commence stuffing their children with meat—and that the worst kind of meat, fat bacon and pork—even before weaning, and before nature has provided teeth for chewing solid food; indeed, with some people, bacon and collards are the staple articles of food for men, women and babies. No wonder that children thus fed are very liable to bowel affections, convulsions, fevers, foul eruptions, and severe inflammations from the slightest injury or exposure! And children thus raised are not only exposed to all kinds of aches, pains, cramps, and an endless train of physical derangements, but mental and moral deterioration must ensue from such a course. A sound mind

cannot exist in an unsound body—in a child, at any rate; and a child who is forever sick and puny must, as a necessary consequence, become fretful and ill-tempered; and, "feeling bad, will act bad," to use the language of a late popular writer, "in spite of good counsel, parental authority, the nurse's lullaby, or the barbarian's rod." These things are worthy the most serious consideration of parents who "would train up a child in the way in which he should go."

Physical and moral health are, with very few exceptions, inseparably connected, and mothers cannot reasonably expect to raise bright, sweet-tempered children when the habits of the latter are such that they must inevitably be tortured with multiplied and intolerable physical disorders. A very few men and women, fortified by all the aid that philosophy and religion can give, may be able to maintain their moral integrity under such Job-like trials, but for a *child* no such hope can be entertained. The conclusion of the whole matter, then, is, that a vegetable diet is best for infants, and for children after weaning, and even to adult age. When a child reaches the age of three or four years, solid animal food, such as beef, mutton, chicken, etc., may be allowed; but we are satisfied from personal observation in our own family, that children can do as well, or better, without any kind of meat even at this age. In our opinion it is time enough to give a child meat when he engages in active labor; and even then his principal food should consist of milk, eggs and vegetables, using this last word in its most comprehensive sense,

and not confining it by any means to the productions of the garden.

The reason for this is the well-established fact that all children and young persons are peculiarly prone to inflammatory affections, and hence the propriety of having their diet to consist principally of cooling vegetables, instead of strong, heating meats. As to the nutritiveness of a vegetable diet, there need be no fears; in the various productions of the vegetable world nature has furnished an abundant supply of all the elements necessary to sustain "growing" persons, and all others.

A word in conclusion on the

Effects of Tea and Coffee on Children.—The common practice of allowing children two or three cups of strong coffee or tea at each meal cannot be too strongly condemned. We have already seen that these drinks are narcotic stimulants, producing effects on the brain and nerves like those of opium. Now, in children the nervous system is highly excitable, and the use of such beverages as tea and coffee increases greatly the tendency to convulsions and other grave affections originating in over-excitement of the brain and nerves. If a child be trained physically in the way in which he should go, if proper attention be paid to air, exercise, clothing, diet and cleanliness, there will be no necessity for any artificial excitants to drive the vital machinery, except in cases of hereditary or congenital weakness; and even these original constitutional defects can be much better removed by a judicious observance of the rules of hygiene than by the administration of

all the nervines, stimulants and tonics of the whole Materia Medica. The fact is, stimulants and tonics can never, of themselves, build up and restore an enfeebled body; they can only assist nature in her efforts for a season, until she has time to draw supplies from the only true, lasting and abiding sources of health and strength—from the hygienic agents, air, food, etc., etc.

Raising Children by Hand and Weaning.

These are so intimately connected with the food of children, that they may be properly considered here.

Time for Weaning.—As a general rule, the time for weaning is when the child is about a year old; but mothers should be governed more in this matter by the degree of general development and the progress of the teething than by the number of months. Unless there is something in the condition of the mother imperatively requiring it, the child should not be weaned until nature shows her readiness to set up for herself, by exhibiting a mouth pretty well filled with teeth. It is well known, that the teething period is not fixed with any definiteness—that it commences much earlier and progresses much more rapidly in some children than in others; and, as the indications of nature should always be our guide as far as possible, we should be governed in deciding upon the propriety of weaning more by the teeth than by the age.

It is also well known, that the heat of summer strongly predisposes to "summer complaint" and

other fatal affections of infancy; and, as exciting causes in the form of improper or excessive eating are much more likely to come into play after a child is weaned, the summer season should, as far as possible, be avoided in weaning.

To do this, the infant should be weaned some time before the beginning of warm weather, so as to become accustomed to a change of diet, or the weaning should be postponed until the heat of summer has passed. Mothers are not justifiable in subjecting their children to the dangers of summer weaning without very good cause. Still we must say, that if a child could have pure country air, and if its diet could be properly regulated, it might be as well and safely weaned in summer as at any other season. As things are generally managed, weaning is indeed at all times rather a critical process with children; but with proper attention to the circumstances passed in review, and especially to pure air and proper diet, all danger from this source may in general be obviated.

But as the mother may be compelled at any time to wean her child, wholly or partially, on account of insufficiency of milk, or ill health, the following directions are given:

In the present unphysiological mode of living, there are not a few women who are so feeble and delicate that they are incompetent to afford a sufficiency of pure and healthful nutriment for their offspring; but the difficulty both as to quantity and quality can generally be obviated by a change of habits, and a more correct manner of living. True, there are consumptive, scrofulous and dyspeptic

women, who have inherited their diseases, or who have sinned against their bodies beyond redemption, and who are, therefore, irremediably diseased. Yet these cases, though, alas, too numerous, are comparatively few; they are but a fraction when compared with the vast numbers who are diseased as a consequence of their own misdoings, and to whom health and strength are yet possible, by forsaking the error of their ways. And this forsaking of bad habits is the true and proper course for all mothers whose milk is insufficient in quantity, or impure in quality. This much they owe to themselves, because in no other way can they promise themselves health and long life; they owe it to their children, because nothing is so conducive to the health and happiness of an infant, as to draw its nutriment from its mother's breast; while no mother who lives in habitual violation of the laws of her being, can afford an abundance of pure and healthy milk.

Mothers Should Nurse their Children.—Surely no woman who will honestly inquire, "What is my duty in this respect?" and who will then follow the dictates of her own better judgment, and the maternal promptings of her own heart, will for a moment think of committing her precious charge into the hands of a stranger, when this can possibly be avoided. And yet—with sorrow we record it—there *are* mothers who are so subservient to the requisitions of a spurious and unnatural civilization, so misled by the seductive charms of the fashionable world, that they disregard the high and sacred obligations imposed on them by the God of nature, and

forego those sweet maternal joys which none but a *loving, natural*, NURSING mother can feel, and which are as far superior to the frothy pleasures of fashionable life as the real and natural are to the false and artificial; as superior as the works of the Author of all wisdom are to the vain inventions of fallible, deluded men; as high above the hollow conventionalities and the so-called pleasures of the fashionable world as the heavens are high above the earth. Maternity has its peculiar pains and trials, but there is a just compensation in all things; and the tender, dutiful mother who watches around the couch of her sleeping infant, who ministers to all its wants herself, has pleasures peculiarly her own, and pleasures so pure, so holy, so exalted as to beggar description. Well might Mrs. Welby say, in one of her sweet strains:—

> "For 'tis a sight that angel ones above
> May stoop to gaze on from their bowers of bliss,
> When Innocence upon the breast of Love
> Is cradled, in a sinful world like this."

A mother who fails, without good cause, to discharge her maternal obligations, may escape some of the cares incident to the rearing of children; but at the same time she deprives herself of the greatest enjoyments of which the human heart is susceptible, and she is guilty of criminal injustice to her offspring; which must weigh heavily on her conscience, and dash with bitterness all the pleasures of her life; and which, in many cases, must result in the moral or physical destruction of her child, with a lifelong train of unavailing regrets over the sad consequences of her own folly and want of faithfulness.

What are the joys of a dutiful mother? 'Tis hers to note the sweet unfoldings of the bud of promise that nestles in her breast; 'tis hers to watch the first dawnings of intelligence; to aid the mind's development; to minister to the body; to guard the morals; to calm with gentle strain the rising storm of passion; and then, when sleep has sealed the eyelids of her precious charge, she can gaze with ravishing delight on the sweet smile that plays on the lips of the little dreamer; and, as she sits and sings, and thinks of the beautiful legend of angel visitants, she can almost see the bright forms that hover around! Is it possible that mothers will forego such pure, such heavenly joys as these for the fleeting and unsubstantial pleasures of the ball-room? Can it be that they will forsake the very precinct of heaven for the crowded perlieus of fashionable dissipation? Will a mother who desires to discharge the sacred obligations imposed on her commit her infant to a hireling, who can never feel a mother's care, who *cannot* and WILL not perform a mother's part? A hired nurse may, indeed, furnish food for the neglected and well nigh motherless little one, but she will never minister to its mental, spiritual and physical necessities with the tender solicitude of a mother. When the misguided parent is absent on her giddy rounds of fashionable folly, her poor babe will often suffer from the carelessness and indifference of the nurse; will often writhe in pain from the harsh inflictions prompted by petulence and impatience; and then, in all probability, the scene of cruel mistreatment will close for the night with a large dose of some stupefying drug,

which sinks the little unfortunate into a deep, unnatural slumber that may prove the sleep of death, and which, if often repeated, must inevitably result in impaired health and an early grave. Thousands of children are thus drugged to death every year. But, if the tender feelings of a mother to her babe will not induce her to nurse it, perhaps she may be influenced by the consideration, that this is one of the most safe and effectual means of preventing a too rapid increase of family. Besides all this,

Raising Children by Hand is attended with great difficulty and danger, even under the most favorable circumstances of private life, where all the attention can be concentrated on a single child; in hospitals the mortality among children thus raised has been truly frightful, amounting to forty, fifty, sixty, and even eighty and ninety per cent. We advise all mothers, then, to be very cautious in adopting this expedient; and it should not be done under any circumstances without medical advice. Send for a physician; give him the whole history of your case; have him to examine you carefully; and then, if he decide that you are laboring under some serious constitutional disease that forbids your nursing in justice to yourself and child, you may attempt to raise by hand, or by hiring a wet-nurse, but not otherwise. In consulting your physician, be sure to tell him all your present and previous habits, ask his opinion as to their nature and tendency, review them all carefully yourself, study the laws of health, impartially consider the effects of your habits in the light of your own experience; and, with the knowledge thus

obtained, you will be prepared to perform your duty. Should a mother decide that it is necessary to feed her infant by hand, it is highly important that this should be done in the best possible manner. This we will endeavor to give. Next to the mother's milk, the best food, all things considered, is a mixture of cow's milk and water, sweetened with sugar.

The milk should be good, rich, unskimmed, *unboiled*, and should, as far as practicable, be obtained from the same cow; and, as an essential to the wholesomeness of her milk, this cow should be fed on natural, healthful, vegetable diet, and not on distillery slops and other vile preparations, which are quite common in city life, and which are doubtless a prolific cause of disease, both among children and adults. The cow should also be allowed free exercise, and should not be stabled and stall-fed after the fashion too common in cities. The milk thus obtained should be diluted, at first with two parts of water to one of milk, and should be sweetened with the best loaf-sugar, putting in of the last about as much as the mixture will dissolve. But should there be a tendency to diarrhœa, the quantity of sugar should be reduced.

How to Give the Milk.—The food having been prepared according to the above directions, it should be given moderately or *milk*-warm, through a sucking-bottle, holding about the quantity requisite for each feeding. By having the bottle of the required size, waste will be avoided without the necessity for pouring the warm milk back into the vessel containing the milk; and thus will the latter be preserved

from sourness, which should be strictly guarded against by keeping the main supply of milk perfectly clean, unmixed with anything else until wanted, and as cool as possible. As a sucking-bottle for young children, there is nothing better than an eight-ounce *vial*. The mouth of this should be stopped with a roll of cloth, and through this should pass a goose-quill. The quantity of milk passing through the quill can be readily increased or diminished by having more or less of the cloth over the external end of the quill, as occasion may demand. This simple apparatus answers every purpose, and is fully equal to any costly sucking-bottle to be obtained from the drug stores. In using this, the stopper cloth should be frequently changed, the bottle should be well washed every time it is used, and, in short, every precaution should be observed to prevent the least sourness of the milk.

While the quill and cloth are excellent, and accessible to all, some may find it more convenient to use an artificial nipple made of India rubber. This is a little conical instrument that can be slipped over the mouth of the feeding bottle, and is a very complete substitute for the maternal organ. This, like everything else connected with baby-feeding, should be kept very clean, and more especially as the India rubber is rather inclined to become offensive to the smell and taste.

When to Give the Milk.—All children, whether raised by hand or not, should have their food at *regular intervals*. A very large proportion of the colics, diarrhœas, and other disorders so common in

infancy, is caused by the common practice of gorging and stuffing at all hours. Let the little fellow cry from any cause whatever, even from the repletion of a previous feeding—which is often the case—and recourse is had immediately to the breast or bottle. This is all wrong. The process of digestion is truly very rapid in infancy, but still it requires *some* time, and trouble must ensue from continually gorging the stomach at all hours, and before it has time to dispose of the contents with which it is already loaded. During the first two or three months of their existence, infants require food about every three hours. A very good plan is to give them nourishment thus: at six, at nine, at twelve, and so on through the day, making the last meal at nine o'clock at night. Six meals in twenty-four hours are enough for any child, and, when the last is given at nine o'clock, there is no earthly necessity for anothe another before morning.

The very prevalent custom of feeding infants at all times of night is highly objectionable. It interferes with the repose of the mother; it is unnatural for the child; for Nature designed the night for *sleeping*, and not for eating; and, besides this, it subjects the infant to many positive dangers, such as breathing an impure air while hanging on the breast, colic, and all the evils at which we have already hinted; and there can be no doubt that many of the cases of smothering and overlying are the result of night nursing.

Wet-Nurses and Nursing Women.

The influence of the mental and bodily condition of mothers over the milk secretion has been alluded to under other heads; but the subject is too important to be passed without some specific directions to nursing women.

Of course these will apply equally to mothers and hired nurses.

But as it may be desirable in some cases to employ a wet-nurse in preference to raising by hand, we will first give some advice on that subject.

How to Choose a Wet-Nurse. — A wet-nurse should be in the prime of life, and free from every taint of disease, inherited or acquired. It has already been seen how much the secretion of milk is influenced by the bodily condition; it is sufficient, therefore, to remark here that perfect health and vigor are all-important and indispensable essentials in the selection of a wet-nurse. And the nurse should be free, not only from actual disease and bodily infirmity, she should be free from any strong predisposition to such constitutional diseases as scrofula, consumption, nervous affections, etc., etc.

The mental and moral characteristics of a wet-nurse are no less important than her physical condition; she should possess a mild, agreeable, and cheerful disposition, with an inexhaustible stock of patience. It is a well-established fact that anger, grief, fretfulness, envy, and all the depressing passions, not only diminish the quantity of milk secreted, but actually change its character, converting

it from the most mild and wholesome of nutriments into an irritative poison, capable of producing convulsions, bowel affections, colics, and a train of the most serious disorders. Medical works abound in examples of this kind: Dr. Bedford, of New York, tells us of an unfortunate woman who lost her husband at sea, which so affected the secretion of milk as to cause a diarrhœa in her child which could be controlled only by a change of nourishment; so soon as this change was made, the little patient recovered with little or no medicine. Were it necessary, numerous instances of the same kind could be adduced; enough, however, has been said, we trust, to convince mothers that the mental and moral condition of nurses is a matter of the very first importance in consideration of the physical welfare of the child, to say nothing of moral influences, of which we shall speak hereafter. In enumerating the requisites of a good wet-nurse, we neglected to mention that her child should be about the age of the foster-child; still, in our opinion, undue importance is attached to this by most persons, and we are certain that it is a matter of small moment when compared with the other things to which we have adverted.

In thus giving the essentials of a wet-nurse, we are sure that we have not exaggerated their importance —so far from it, we feel conscious that we have not presented them as strongly as they deserve; yet this imperfect sketch may serve one very useful purpose —it may show mothers how very difficult it is to find a suitable wet-nurse, and may thus tend to induce them to follow our advice, in considering well

what they do, before they give the nursing of their children up to another, instead of performing this duty themselves.

If mothers are convinced of the truth of what has been said, they will be very far from shunning their duty to their children for any light and frivolous cause; and even when driven to do so by stern necessity, they will have a physician to examine carefully into the physical condition of the proposed nurse; they will satisfy themselves fully as to her mental and moral traits.

Diet and Drinks of Nursing Women.—The diet and drinks of mothers and wet-nurses are matters of the very first importance; because errors in these particulars must ultimately impair the health of the mother or nurse, resulting in those diseases and physical disabilities of which we have before spoken; and even when there is no immediate and manifest symptom of disease in the nurse, it is a well-known fact that certain articles of food and drink, when taken by nurses, will cause colic and other disagreeable effects in a child at the breast.

The *diet* of nurses should consist of wholesome, nutritious food, plainly cooked, and eaten in moderate quantity. To be a little more specific—it should be composed mainly of nourishing animal soups, milk, rice, bread, ripe fruits, boiled or baked mutton and beef, etc., to the exclusion of all highly seasoned dishes, rich gravies, fat pork, salt bacon, pastries, acid and unripe fruits, pickles, and such like.

Mothers and wet-nurses are very much given to indulgence in the free use of meat, and the strongest

kind of food, because, as they say, "they have to eat for two." Hence, nurses who have, as a general rule, never enjoyed the luxuries of life in too great abundance, are very apt to take advantage of this idea, and to make it a license for the gratification of a gluttonous appetite, and for a troublesome fastidiousness with regard to their diet. Such a course, either on the part of mothers or nurses, is highly injurious to their own health, and destructive in its effects on the infant. It is only the food that is *digested* and taken up into the blood that goes to nourish the nurse or the child; and all that is not digested and taken into the circulation must oppress the stomach, causing colic, diarrhœa, headache, and general derangement of health, with consequent impairment of the secretion of milk, either in quantity or quality, and oftener than otherwise in both. Once, or at most twice a day, is often enough for any woman who does not lead quite an active life, to take meat; and this, together with everything else, should be eaten in moderate quantity—just enough to satisfy a natural, reasonable, healthful appetite—such an appetite as nature will give to all nursing women who live right, and who are guided by the plain teachings of physiology and common sense, instead of the absurd notion of "eating for two," and "the more we eat, the fatter we get," etc., etc.

As a general rule, vegetables should be the principal diet of nursing women, as of all others who do not take active exercise. But there are some vegetables, such as potatoes, turnips, peas, etc., that give rise to flatulency in nurses and children; and

when it is found from experience (our only safe guide in such things) that such is the case, all articles of diet so offending should be left off.

The only *drinks* of nursing women should be water, pure simple water; chocolate, if it agrees; hot-water tea; and milk, which may be regarded both as food and drink. The habit of resorting to tea, coffee, wines, cordials, and various stimulating drinks, under the mistaken notion that they increase the milk and impart strength, is most pernicious, and is ruinous to the health of nurse and child. Stimulants can never give or increase strength; and though some of them may cause a temporary increase in the milk and other secretions, the excitement caused by them is unhealthful, the effects are transient and unnatural, and the consequences of their use—except in some cases of disease—are evil, evil only, and that continually.

Drugging Nursing Women.—Allusion has been made to the pernicious effects of drugs in excess, and particularly of opiates, when administered directly to infants. The effects of drugs when taken through the nurse's milk are perhaps no less disastrous; and certain it is that such effects are almost wholly unknown to, or diregarded by, mothers. Many, perhaps, most drugs, pass unchanged into the blood, and from the blood through the various glands out of the body. In this way, opiates, purgatives, stimulants, and almost every medicine may pass through the milk gland, producing all the specific effects on the child that would ensue from pouring them into his mouth from a spoon.

The inference is plain and obvious—mothers and nurses should use drugs very sparingly, and as a general rule, only by the advice of a physician. Much the best and safest plan is to so live as to render drugging unnecessary; better throw physic to the dogs than to be continually saturating your blood with it, and dosing your infant through your milk, when you could get along without it, by obedience to the laws of health, and when it is not only useless, but *killing* to your babe.

Air, Exercise, etc., of Nursing Women.—Pure air and exercise are absolutely essential for nurses. Without these, no function of the body can be properly performed—the blood will become corrupt—the general health will become deranged—the vital processes will be suspended, or improperly carried on, and every secretion be impaired. Without exercise to re-invigorate the body, and drive the blood through the sluggish vessels, these will become clogged up with gross and irritating impurities; and without the vitalizing, vivifying, and purifying effects of free air, the blandest and most wholesome of fluids, such as milk itself, will be converted into an acrid disease, —generating poison. In view of these facts, mothers should exercise, and be much in the open air themselves; or, if they have a wet-nurse, they should see to it that she does not become too fat and lazy, which she is very likely to do, if she is employed by a wealthy family, and has nothing to do but to attend to her little charge. At the same time, mothers and nurses should avoid over-heating, and excessive worrying:—the exercise should be moderate, reasonable,

healthful, and not exhausting, depressing, and over-fatiguing. In short, nursing women should, above all others, live naturally, physiologically, and *common-sensely*, disregarding alike the rebellious movings of a misguided appetite, the fanciful whims of the ignorant, the baseless traditions of grandmothers, and many of the time-honored customs of the nursery-room. If nursing women would rear healthy and sweet-tempered children, they must be healthy and sweet-tempered themselves; and to be thus, requires obedience to the laws of health, not only in eating and drinking, and moral influences, and all things mentioned in this article, but also in sleeping and in cleanliness, in temperature, in the regulation of the excretions, and in everything else that is pure, healthful, and of "good report." One of the great secrets of *babyism* is a healthy nurse; and the great secret of health is correct living. This is worth more to mothers, to the rising generation, to all womandom, and "the rest of mankind," than an army of physicking doctors, or a ship-load of drugs.

Some of the Difficulties of Nursing Women.—Before finally dismissing this subject, a few of these may be noticed.

In some cases there is difficulty in getting the child to take the nipple. This is generally caused by delaying its application to the breast too long, and by over-fulness of the breast and retraction of the nipple. The first difficulty is to be avoided by giving the breast to the child soon after birth, as already recommended. The over-fulness is to be relieved by drawing the breast by artificial means. The nipple

may be drawn out by filling a bottle with hot water, and putting the nipple into the neck of the bottle, while warm, after pouring out the water.

Ulcerated or Fissured Nipples, and inflamed breasts are also obstacles to suckling. Of these we have spoken in another place.

Some women are troubled with an excessive secretion of milk. The remedy for this is a dry diet, avoiding all stimulants, and especially coffee. Some preparation of iron—preferably, the tincture of iron—may also be taken.

Another difficulty is a deficient secretion of milk. This is to be remedied by tonics, nourishing diet, and the free use of drinks; but we would not advise alcoholic drinks in such cases, as some do. Such cases as these should have the advice of a physician.

Sleep of Children.

Having now passed in review the conditions of mothers which stand in close connection with the feeding of children, we return to some other points in their hygienic management.

Sleep of Infants—Opiates.—Infants require more sleep than older persons, because their tender frames could not bear without injury the various exciting influences to which they are necessarily subjected during the waking state; and, besides this, while all the voluntary organs rest in sleep, nature is able to concentrate all her energies on the great internal nutritive processes, by which the growth of the body is hastened; for it is so arranged in the

wise economy which regulates the human system, that the vital organs of repair and nutrition are more active when all the other organs repose in sleep. It being true, then, that young children need a great deal of sleep, it follows that restlessness and wakefulness are injurious, and they are indications that there is something wrong. The difficulty in these cases can generally be traced to improper feeding, tight clothing, excessive warmth, or confined air.

When a child is restless and sleepless, it is a too common practice to resort to opiates instead of inviting sleep by attention to those external surroundings, those hygienic agents which may generally be made effectual, and which are natural, healthful, and far safer than stupefying drugs. These may be admissible in some rare cases of disease, when administered by the advice of a very prudent physician, but we say without hesitation that such means should never be resorted to without such advice. And yet how common is it at the first appearance of restlessness to fly at once to paregoric, Bateman's Drops, Godfrey's Cordial, soothing syrups, and the thousand and one child-slaughtering compounds that may be found in almost every household! And, as incredible as it may appear, the administration of these dangerous articles is sometimes committed to an ignorant and careless nurse, who is but too ready to deal them out freely in order to prevent her own repose from being disturbed. And we have even heard of mothers who, in their desire to attend some place of amusement, have been so thoughtless,

or so heartless, as to give a large dose of laudanum or some other potent narcotic to their babes, in order that they might sleep while these mothers were absent!

Surely such people as those, and all who resort to opiates on every trivial occasion, know not what they do; for we cannot believe that any mother who is properly informed would pursue such a murderous course. No! mothers could not, would not thus act if they knew the dangers attending the administration of opiates to children; if they knew how exceedingly susceptible are the brains of children to such impressions; if they knew that those brains are naturally prone to inflammation and congestion; that opiates, in all forms, increase this state of things; that the smallest dose will sometimes produce a fatal depression, and that the frequent use of such agents will inevitably result in a state of chronic or habitual engorgement of the vessels of the brain, that will, from the slightest cause, give rise to fatal convulsions, dropsy of the brain, or some more obscure but no less fatal disease. Yet all this is true, and *more;* for opiates spend their force on the brain and nervous system, which may well be considered as the main-spring and fountain of life, the great regulators of the whole vital machinery; and, therefore, it is just as impossible for the human machine to perform its functions properly when under the depressing influence of any kind of narcotic, as it is for a watch or a clock to run properly when the main-spring is deranged in its action.

By the habitual use of opiates, the stomach is de-

ranged, and thus all healthful supplies are cut off; from the same cause, the action of the heart is interfered with, and thus the blood is not properly distributed to the system; the breathing is also rendered slow and laborious, and thus the poisoned and sluggish stream of blood is not properly purified and vitalized in the lungs; and, as a consequence of all this, the poor overdosed and narcotized infant wastes in flesh, pales in color, becomes bloated and dropsical, or shrinks to skin and bones, and thus does the unfortunate victim of folly sink to the tomb under a multiplied train of nameless disorders, if it is not cut off earlier by some acute disease.

Instead of giving opium, the remedies for sleeplessness in children are, such feeding as we have recommended, cool, pure air, loose clothing, and the warm bath at bed time. This will generally act like a charm in allaying the feverishness and nervous excitement, which are the most frequent causes of the difficulty

Sleeping Rooms for Children.—The nursery room should be large, well aired, and elevated as far as possible above the ground floor. From this room plants and flowers should be excluded, as they tend to vitiate the air.

The beds of children should be considerably elevated, to guard against the impure air which naturally settles near the floor. Still, if the room is kept scrupulously clean, as it should be, and properly ventilated, impure air will find no place within it, but will be swept away by the free currents circulating through it. The beds of children should

not be put under other beds during the day, but should be exposed to the air, so that impure secretions with which the bedding may be impregnated may be dissipated. To guard more effectually against danger from this source, the beds and bedclothing should be exposed as much as possible to the sun as well as to the air.

Curtains should never be placed around the beds of children, and their faces should not be covered while asleep, even with a veil. If any one has any doubts about the interruption of a free circulation of air, even by the thinnest veil, those doubts can soon be removed by placing one of these coverings over the face, and in contact with it. The warm stifling air will soon produce a very disagreeable and even painful feeling of oppression.

Air and Exercise for Children.—The first want of an infant is an abundant supply of pure air; and yet many people seem to think that a little babe is a kind of hibernating animal that can live almost without air. There can be no doubt that the fearful mortality among children is largely due to the want of pure, fresh air in the nursery-room. Dr. Clarke informs us that in a Dublin hospital, nearly half the children were cut off within the first two weeks of their existence; but so soon as measures were taken "to insure a free circulation of pure air throughout the wards of the hospital, the dreadful mortality that had previously occurred among the infants inhabiting them was almost immediately suspended." Even when deprivation of pure air does not produce any immediate and fatal train of symptoms, the

powers of life are gradually impaired; the proper development of the body is prevented by the suspension of the chemical and vital changes in which the oxygen of the air plays such an important part, and thus is the foundation laid for diseases that are often incurable. The effects of confinement and want of air are seen in paleness of the face, flabbiness of the muscles, dulness of the eyes, shortness of breath, smallness of growth, rickets, indigestion, consumption, scrofula or king's evil, and a numberless train of the most fatal disorders to which flesh is heir.

Children really stand more in need of an abundance of pure air than grown persons; for, as just intimated, a free supply of the oxygen of the air is absolutely essential to those great chemical and vital processes by which the growth of the body is secured. The nursery-room, then, should be the largest, most airy and cleanly in the whole house; all causes of impurity should, as far as possible, be avoided, such as smoking lamps and chimneys, coal fires, stoves, tobacco smoke, and, in short, everything that has a tendency to vitiate the air by the introduction of foreign elements, or by the abstraction of its vital principle, oxygen. If the room be a close ceiled one, it should be well aired every day by opening all the doors and windows, while, if the weather be cold, the child can be transferred to another room. And an *air-hole* should always be left open, day and night, hot and cold, by having one or more windows partially or entirely open, according to the *temperature* of the weather. But, while an abundance of pure air is

diffused throughout the room, the child should not be placed immediately under a window, or between windows and doors, so as to be exposed to a strong current. In short, all the arrangements of the nursery-room should have two great objects—1st, the equable diffusion of pure air; and 2d, the preservation of proper warmth.

After the first month, infants should be carried out into the open air, when the weather is pleasant. They enjoy this wonderfully, even at a very early age, as is manifest from their efforts to approach an open door, and from their "crowing," and other unmistakable evidences of pleasure. These are the unerring indications of a natural instinct which should teach us that the free air and the bright sunlight of heaven are essential to the health and happiness of infancy.

Some mothers seem to appreciate the importance of fresh air to the health of their children; but then they are so fearful that the "little things" will take cold that they often suffer for want of pure air, even when carried out, and when the nursery-room is amply supplied. Children often have their cribs or cradles closed in with thick curtains, or their faces covered while sleeping, so that they are subjected to the necessity of breathing over and over again an impure air, impregnated with the exhalations from their bodies, and exhausted of its vitality; and thus are they deprived of all the advantages of ventilation, however complete and unobjectionable all the arrangements for securing this may be. And such is the fear of cold that the benefits of an out-door air-

ing are often lost by smothering up the face of the child in blankets or shawls, or by sticking its head under the cape or shawl of the mother or nurse.

These practices cannot be too strongly condemned. Air is needed as much, nay, more, by children than by older persons, and as to cold, there is no danger, if currents be avoided within doors; if proper weather be chosen for out-door airings; and if due attention be paid to the clothing, and particularly to the covering of the feet, arms, and legs.

It is hardly necessary to give any special direction as to the exercises of children who are able to walk and crawl, as they will be sure to take enough, in spite of all the restraints that can be put on them. But there is a kind of passive exercise to which very young children may be subjected, that is very beneficial. This is MANUAL EXERCISE.

By this we mean gentle rubbing with the hands of the mother or nurse. For the first few weeks of their existence, infants should be allowed to indulge their natural inclination for repose to the fullest extent, and they should be handled as little as possible. But after the first month or two, they should be gently rubbed all over with the hand at least once a day. The best time for this is after the daily washing or bathing, before recommended. Passive exercise or friction with the hand communicates a very pleasurable sensation, which is evinced by the movements of the child; and those exercises promote a vigorous circulation in the capillary vessels of the skin.

Vaccination.

As this is strictly a hygienic operation, it may be more properly considered here than in the succeeding chapter. The protective power of vaccination against small-pox is so well established, that it is needless to adduce any evidence on this point.

We will only urge the importance of an early resort to it, regardless of the unfounded fears and prejudices which some entertain with regard to it. These dangers are greatly magnified; and even admitting that the operation may, in some rare cases, be attended with disagreeable effects, no one will pretend to say that these are sufficient to justify any one in incurring the certain and terrible dangers of small-pox.

Where there is nothing in the health of the child to forbid, the operation should be performed early—as early as a month or six weeks after birth. This operation should be repeated from time to time, with short intervals, until fully assured that the vaccination has taken, which will be known by the usual signs known to all physicians, and to most mothers.

It is a common opinion among the people, that re-vaccination should be performed at least every seven years. But in many cases, a single vaccination is full protection for all time. Still, as there are many exceptions to this, it is proper to re-vaccinate whenever greatly exposed to small-pox, when there has been a considerable interval since the previous vaccination. It is more especially desirable to renew the vaccination after the age of puberty.

Recent researches seem to show that the protection afforded by vaccination is increased by inserting the matter at more than one point. That is, by making from three to six punctures near to each other, at the usual place. This should be remembered and practiced accordingly.

Regular Babies.

We cannot better conclude the hygiene of childhood, than by insisting on the importance of training children to regular habits.

We copy in part from a late number of our *Herald of Health:*

The truth of Solomon's declaration with regard to training a child is very generally admitted.

But when we come to apply his doctrine, we never once think of "babies," but of boys and girls capable of being reasoned with, reproved, and, if necessary, "thrashed" into obedience and good behavior. For who ever thought of an unreasoning, unthinking, senseless tormenting, squalling baby being trained to anything? But a moment's reflection will convince any one that the training of a child may be commenced with the first dawn of intelligence, and even before.

How soon does the little stranger learn to distinguish the difference between a mother's smiles and her frowns! All mothers have seen how the most gentle tap of displeasure will fill the eyes with tears, and cause a convulsive quiver of the little mouth. These signs indicate some development of the emotional and intellectual faculties at a very tender age.

But even before these manifestations, there is a great law of nature which is coeval with the very birth of the child. This is the law of periodicity, or regular alternations of activity and repose. "Order, is Heaven's first law; regularity, Nature's great rule."

This law impresses itself on all the functions of the human body, both in health and disease; before as well as after birth. And it is equally as operative on the youngest infant as on the full grown adult.

Indeed, this law may be properly regarded as the foundation of the great truth—"train up a child in the way in which he should go," etc. And so prevailing and universal is this law, and so often have we seen its power demonstrated, even in very young children, that we have no hesitation in saying that an infant can be trained to regular habits in eating and sleeping from its very birth; and that one so trained will not depart from it even when young.

The prevalent custom of raising children without any regular hours of eating or sleeping, is directly opposed to Nature's great law of regularity, is the source of more unhappiness to parents, and the cause of more perversity, diseases, and deaths among children, than any one thing.

To this is mainly due the anxious days and sleepless nights which imbitter wedded life, and cause every addition to the family to be received with fear and trembling, instead of with joy and thankfulness, as it should be. A child thus raised is not only subject to disease from over-eating at improper

times, but when it gets old enough to move about the house, eating as it does, from morning to night, it is a source of endless annoyance to all mothers and good housewives. But nursing infants at night is specially objectionable. For it interferes with the repose of the mother, is an excessive tax on her powers, and is the immediate cause of the death of many little innocents. Not only are colics, diarrhœas, and most of the other ailments of babyhood due to gorging the child at such unseasonable hours, but most of the cases of smothering, or over-lying, are the result of giving the child the breast at night.

The mother, worn down by fatigue and loss of rest, must yield to the demands of nature; she falls asleep—and thus is her child sacrificed.

As to the intervals for feeding infants we have already given directions.

But the great thing is to *establish a regular habit* —to conform to the demands of nature in this respect. Regularity as to the *time* is more important than the length of the intervals, though these should not be too short. The establishment of habits of regularity in eating, and in other things, is more easy than most people believe; indeed it is less difficult than with older persons; for at this tender age there are no opposing influences, no counter-currents, and the little fellow falls into the channel grooved out for him by nature, just as naturally as he takes his mother's breast in an hour after he is born. And why? Because, the same or a similar law of nature which makes him take food, requires that it should be taken with proper intervals and at

regular times. Away then with the absurd and destructive error that infants are creatures of whim and caprice, subject to no law, and incapable of being trained to any regular habits in eating, sleeping, or anything else. We know this to be untrue for the reasons given, and from abundant observations in our own practice. Six times have we seen the truth of this teaching demonstrated in one family, without a single failure. And the parents of the six children reared in accordance with the precepts here given, have not lost a week's sleep on account of sick or crying children for twenty years; and during that long period they have not, perhaps, been called up a dozen times, even to give a drink of water. The truth is, children properly raised do not often call for water at night.

Finally, we may add, that with the promise of exemption from the ills of pregnancy and the pangs of labor by a hygienic course of living, and from some of the greatest trials of rearing children by conforming to the laws of the same beneficent science, poor, worn, weary, over-burdened and well-nigh despairing mothers have much to cheer them—much to hope for, even in this life, which to many of them is truly one of "great tribulation." But remember that God gives grace to the humble, the trusting, and the dutiful, and that obedience to the physiological laws which he has instituted will bring its own sweet reward in peace of mind, health of body, and freedom from most of the evils which are the inevitable consequences of transgression.

Moral Management of Children.

We might enlarge considerably on this; but as the subject comes more in the province of the moralist than of the physician we will notice only a few prominent points.

In the management of children, the first thing is to secure their LOVE and RESPECT. The former is to be obtained by loving them; consulting their happiness and gratifying their reasonable and proper desires.

To secure the respect of children, parents must act so as to merit respect. Children soon learn what is worthy of respect, and what is not. Respect cannot be retained without TRUTHFULNESS, candor, and firmness. Therefore children should never be deceived. When a promise is made it should never be broken.

And even in "those matters of delicate mystery about which little folks often inquire, and get no information," mothers should follow the advice of Mrs. Gleason, and either tell the truth, or nothing, until the child is old enough to use its knowledge rightly. "If they ask you where your babies come from, do not say 'the doctor brings them,' or that 'papa finds them under a black stump.'" As our writer truly adds, such deception causes children to lose confidence in their parents, and ministers to a prurient curiosity, and vain imaginings which are hurtful to morals.

FIRMNESS is no less essential in parental government. Children should be ruled by love and mild means if possible, but ruled at all hazards. We cannot agree with those who would entirely abolish

corporal punishment; for this is necessary in some cases. Far better is it to resort to this than to shut children up in dark rooms, and to terrify them with stories of hobgoblins, "jack-o-lanterns," and such nursery tales. These should never be allowed.

Children should be taught early that when you say no, you mean it. And therefore your resolution to deny anything should not be overcome by crying or pouting. Mothers would spare themselves a great deal of trouble by ceasing the too common practice of paying children for crying. That is granting their desire because they cry. If children do not say it, they will act on the principle that actuated the little boy who said to his mother "here take this cake and put it up until I cry for it to-morrow."

The rule is, make few threats and promises and always carry them out.

Of course parents should avoid every appearance of anger in their corrections. Let the child believe that the infliction is painful to you, and only for its good.

Teach them to Pray.—Finally, we would insist that parents early learn their children to pray. True they may not appreciate this in their childish days, and many of their prayers may be as inappropriate and even as ludicrous as was the effort of the poor fellow who, while in danger of being killed by a runaway horse, commenced repeating the prayer of his childhood, "Now I lay me down to sleep." But in after years the prayers offered by the father at the family altar, or the simple petition learned at the mother's knees, will have a greater restraining influ-

ence than whole volumes of sermons and moral precepts. Such is the experience of many a prodigal who has been beguiled by sin, and wandered far away from his father's house and his mother's counsels.

CHAPTER II.

SOME OF THE DISEASES OF CHILDREN.

As this work has much more to do with hygiene or the prevention of disease, than with its cure, we propose in this chapter to give the domestic management of only a few of the more common diseases of infancy and early childhood.

It may be proper to premise that the period of infancy is generally regarded in this country, as extending from birth to the end of the first teething, embracing as a general rule, from two and a half to three years.

Teething of Children.

Teething is a healthy, natural process, and not a disease. Still the condition of the system at the period of teething is such as to constitute a predisposition to disease; and this predisposition is but too often developed into actual, open disease, by improper feeding, excessive drugging, uncleanliness, insufficient clothing, and impure air. On all these points we have perhaps sufficiently enlarged.

The process of teething is generally completed

between the sixth and thirtieth month from birth. The SYMPTOMS are redness, swelling and tenderness of the gums, with a free secretion of saliva or spittle, and a disposition on the part of the child to gnaw or bite any hard body that may fall into its hands. With these symptoms there are frequently more or less restlessness and fretfulness, and sometimes there may even be feverishness; and especially if the little one is allowed to indulge in meat, butter, pastries, and crude indigestible food, which would be improper in all cases, and which is almost sure to result in disease in the irritable and inflammatory condition of the system which exists at the period of teething.

One of the most common accompaniments of teething is looseness of the bowels. The discharges may be frequent and watery, differing but little except in consistence and frequency, from natural, healthy evacutions. But perhaps oftener than otherwise, in the present mode of baby management, they are not only loose and watery, but greenish and curdled, indicating a considerable degree of irritation of the mucous membrane lining the intestinal canal. Now the discharges from the bowels during the process of teething should be regarded as an effort of nature to relieve irritation—as a safety vent for the expulsion of morbid matters. Hence, within certain limits, these discharges are salutary, and therefore they should never be checked suddenly.

On the other hand, the equally grave error should be guarded against of letting a child run down to skin and bones, and perhaps into the grave, under

the idea that "it is only a bowel complaint from teething," and that no harm can come of it.

Here then is Scylla on one hand, and Charybdis on the other. If the bowels are checked suddenly with astringents and opiates, the child will in all probability be thrown into a wasting fever, and die of inflammation of the brain, stomach, bowels, or lungs. If the exhausting drain is permitted to go on unchecked the little sufferer will waste away and die from debility. And the difficulty in these cases is increased from the fact that the wasting is so gradual from day to day, that the child may be reduced beyond the point of recovery before the alarm is taken.

What shall be done then? Shall we resort to opiates and astringents to check the bowel complaints of teething? We answer unhesitatingly, no. Such remedies may be safe in the hands of a very prudent and judicious physician, but for mothers and nurses *never*. The fact is, the danger from debility and exhaustion is much less than that from the fever, convulsions, and inflammation that are likely to arise from injudicious attempts to check the discharges. Indeed a child will hardly ever die of the diarrhœa of teething, under the following *treatment*, which is equally safe and efficient, while it is so simple and plain that even a wayfaring *woman*, though a fool in things medical, "need not err therein." Teething is accomplished in many instances without the slightest inconvenience; and we feel no hesitation in saying that this would almost always be the case,

with due attention to the directions which we will now give.

The feverishness of the system should be allayed by warm or tepid bathing, regulating the temperature of the bath according to the degree of heat; that is, the hotter the skin, the cooler the water, etc., Bathing has a most happy effect in soothing the nervous and vascular excitement; and the best of all is, it is a safe remedy, being free from the danger of congestion of the brain, and those disorders of the stomach and derangements of the general system so likely to ensue from the use of opiates and soothing syrups, powders and mixtures. To quiet the restlessness, and to allay the feverishness attendant on teething, the wet sheet pack commends itself strongly to the consideration of mothers both for efficacy and for convenience. If the excitement is not very great, the sheet need not be cold, but may be dipped in warm or hot water. The warm bath or sheet-pack is especially valuable when used at bedtime. In quieting restlessness, and in inducing refreshing sleep, either of the above remedies is superior, safety and efficiency both considered, to any drug, animal vegetable, or mineral.

In addition to general bathing, teething children should have the mouth washed frequently with cold water; and they should be allowed to drink freely of pure water, gum-water, or slippery-elm mucilage. If the child is not weaned, it should be restricted to the mother's breast; if weaned, the diet should consist of cow's milk, hot-water tea, rice-water, toast-water, parched rice, rice boiled in milk, arrowroot,

tapioca, crackers or biscuit crust grated in milk, etc., etc. Under this simple treatment combined with exercise in the open air, and a strict avoidance of all stimulants in the way of food, drink, or medicine, ninety-nine cases in every hundred of teething will terminate favorably, and all the dangers of this critical period will be safely passed.

Should any direct means be necessary to allay the irritation of the bowels, use a small syringe filled with pure cold water after each evacuation. If the discharges are acid (which will be indicated by their greenish appearance), then give a teaspoonful of a solution of carbonate of soda, or a few grains of chalk or magnesia, repeating the dose of either, at intervals of two or three hours, until the stools become less frequent and more natural in appearance.

If the gums are hot and swollen, they should be freely lanced, cutting down until the tooth is plainly felt grating on the edge of the instrument. This is a simple and safe operation; it can be performed by any one, and often gives the greatest relief. Indeed, sometimes all remedies will fail to have the desired effect until the irritation caused by the pressure of the tooth on the gum is removed in the manner indicated. Various washes are used by people with the view of softening the gums, and some seem to think that there is great virtue in the *brains of rabbits!*

It is hardly necessary to say that such things can have no specific power to accomplish the end designed, and that such absurd superstitions should be utterly discarded by all intelligent people. Yet rub-

bing the gums with some substance that is not so hard as to irritate, and not disgustingly filthy in its nature, is harmless, and pleasant to the child, and therefore it may be allowed an India-rubber toy, or something of the kind.

Prescription for the Chronic Diarrhœa of Teething.

While we are opposed to the use of active drugs in domestic practice, and while drugs of any kind will rarely be necessary in the diarrhœa of teething, if the directions before given are strictly followed, yet we can confidently recommend the following recipe in chronic and obstinate cases. According to our experience it is a most efficient compound, and it may be safely used in domestic practice: Take calomel, two grains; Dover's powder, two grains; powdered ginger, twelve grains; prepared chalk, thirty grains. Mix well, and divide into twelve powders. Give one every two, three, or four hours, regulating the frequency of the dose according to the condition of the bowels, and continuing the medicine until the discharges become natural and healthy. This preparation does not check the bowels suddenly, but gradually changes the secretions to a healthy condition. The proportion of opium to each powder is quite homœopathic, being only *one-sixtieth* of a grain, while there is only *one-sixth* of a grain of the other active ingredient—calomel.

We have tested the above prescription in many cases, and we rarely find it necessary to resort to anything else, with due attention to diet, clothing, and bathing.

Convulsions of Children Teething.

Convulsions are better known among the people as "fits." In the present mode of dosing with opiates and astringents, and of excessive stuffings with meats, grease, and pastries, convulsions are quite a frequent complication of teething. And of all the disorders of infancy, these are, perhaps, the most formidable in appearance, and the most heart-rending to a mother. The SYMPTOMS of convulsions are so manifest as to require but little description. Every mother who has seen her darling writhing under a fit, with body stiff and immovable; with twitching muscles, clenched hands, glaring eyes, labored breathing, livid face, and distorted features, has the horrid picture indelibly engraved on her memory, and she can recognize the approach of the dreaded disorder on the occurrence of the slightest premonitions, such as starting in sleep, rolling of the eyeballs, and jerking of the muscles of the fingers and mouth.

The CAUSES of convulsions in children are numerous and various; but we confine ourself to the convulsions resulting from the irritation of teething. But cutting teeth alone would rarely if ever cause the disorder. As before intimated, it is generally brought on by suddenly checking the diarrhœa of teething by the use of opiates and astringents, and by adding to the existing excitement of the system by giving children gross, stimulating food. For the proper diet for teething children, and for some remarks on the dangers of drugging with opiates and astringents, we refer to the previous article.

Besides the remedies already indicated, as appropriate in all cases of teething, the special domestic *treatment* of the convulsions of teething should consist in the use of the warm bath and cold affusions to the head.

As soon as a child has the slightest symptom of an approaching fit, the whole body should be immersed in milk-warm water, and at the same time cold water should be freely poured upon the head, while the latter is turned over the edge of the bathing vessel. The little patient should remain in the bath until the system is thoroughly relaxed, which will be manifested by some paleness about the face, perspiration, a languid expression of the eyes, and a disposition to sleep. These effects having been seen, the patient should be taken out of the bath, quickly dried, and placed in bed, or in the nurse's arms; and a thin cloth wet in cold water should be laid on the head and changed every two or three minutes. It is best in these cases to put no clothing on the child, except a gown or wrapper, so that it may be readily undressed and placed again in the bath; and this should be done on the recurrence of the slightest symptom of spasms. The water should always be kept ready, so that there may be no delay in preparing the bath. This treatment, with a properly regulated diet, will be sufficient in most cases of the convulsions of teething. Should other remedies be required, they should be administered by the advice of a physician. Cutting the gums, and other special remedies, before prescribed, should not be neglected.

Colds.

This is a general term embracing more or less inflammation or irritation of the mucous membrane lining the nose, throat, wind-pipe, or the air tubes ramifying through the lungs. In this last case it is known technically as "bronchitis," and is a very common, and in young children, often a very dangerous affection. The eyes are often affected by exposure to cold, or by sudden changes of temperature. And the same is true of the bowels. Indeed, except over-feeding, arrest of the action of the skin by changes of weather, or by cooling off too rapidly after exercise, is the most frequent cause of diarrhœa, and the other affections known as "colds." Children are much exposed to such causes; and they would suffer much more than they do, were it not for their active habits, when they get so that they can run about.

But infants in the arms, not being guarded against the effects of cold by exercise, are very liable to be affected by exposure to cold, resulting in croup, bronchitis, cold in the head, sore eyes, and indeed most of the more common disorders of infancy.

One of the most frequent causes of the affections of the mucous membranes, known as "colds," is suffering children to sleep between doors or windows, or in a passage or hall, where they are exposed to a strong current of air. Many children lose their lives by being entrusted to the care of a nurse, who permits her charge to fall asleep in its little carriage, exposed to the open, and often cold air, without

sufficient covering, frequently without any covering for the feet and legs.

Mothers should guard these points and thus save themselves from trouble and much sorrow, and their precious little ones from disease and death.

And let it not be forgotten that stuffing with gross, indigestible food is not only a frequent cause of "bowel complaints," but also of the inflammations of the air-passages, before mentioned. The domestic TREATMENT of these affections is simple and effectual. It consists in the use of the warm bath, or warm, wet-sheet pack with a light, unstimulating diet, such as that prescribed for children, in the preceding chapter. In addition to this, the child should have mucilaginous drinks, such as slippery-elm tea or gum water; flaxseed tea acidulated with lemon juice is a good remedy in such cases; but as a general rule, the less drugging the better. If there is much heat and dryness of the skin, it should be sponged with tepid or lukewarm water, whenever the temperature becomes higher than natural. There need be no fear of cold in using water in this way; for it is not only safe, but one of the best of all remedies.

For the stuffing up in the nose, which sometimes interferes seriously with infants in drawing the breath, the common domestic remedy of greasing the nose inside and out, with tallow, is very good. And so is the application of a warm sponge, or warm cloth to the nose.

These remedies should be followed by considerable friction along the sides of the nose.

For a common cold, this treatment will generally be sufficient. Should great difficulty of breathing, attended with a dry cough and wheezing occur, a physician should be called without delay.

Croup.

This is a very dangerous affection of the mucous membrane lining the wind-pipe, or the opening into it, called the larynx. It may be spasmodic or inflammatory. The danger in both cases is from obstruction to the breathing, by constriction or narrowing of the passage to the lungs. Fortunately it is a rare disease in very young children, not occurring generally during the first year of life. The CAUSES of croup are very much the same as those of common colds and bronchitis. Some children are very subject to repeated attacks; and when a child has had one of these, special attention should be given to guarding against the exciting causes mentioned under the preceding head.

The SYMPTOMS are so manifest that they cannot be mistaken. The prominent ones are difficulty of breathing, and a dry cough attended with a peculiar barking brazen kind of a noise, which will always be recognized when once heard. This is attended with a very anxious expression of the countenance, discoloration of the face, and particularly of the lips, with more or less fever if the attack is of the inflammatory variety. The invasion may be sudden, or it may be preceded by the symptoms of an ordinary cold.

The domestic TREATMENT consists mainly in the

prompt use of the warm bath, or warm wet sheet pack, and the administration of an emetic.

The bath should be as warm as it can be borne comfortably; and should be continued until the system is thoroughly relaxed, as indicated by loss of color in the face, weakness or sickness of stomach, and change of the expression of the eye. The bath should be kept at hand, ready for use, on a return of the distressing symptoms.

"Hive syrup," or the compound syrup of squills is an excellent emetic in these cases. It may be given in doses of from ten drops to a teaspoonful, according to the age of the child, and according to its effects.

But a safer, and very effectual remedy is an emetic of alum, as recommended by Dr. Meigs. From half a teaspoonful, to a teaspoonful of the powdered alum may be given in syrup or water every fifteen or twenty minutes, until vomiting occurs, or until further aid can be obtained. And this should always be sought as soon as possible.

Another good remedy is the inhalation of the vapor of hot water from any suitable vessel. And in all cases of croup, the air of the room should be heated to a pretty high temperature, and should be kept moist by diffusing the vapor of water through it by means of a boiling tea-kettle, or by placing a vessel of water on a hot stove. This is very important. But while the room should be kept warm, and the air moist, care should be taken to admit a sufficiency of fresh air. This is no less important than the other, for the patient must have an abundant supply of oxygen.

One other caution. When a child has an attack of croup at night, and the least symptom remains, next day he should be kept indoors, and the treatment should be continued. Indeed, after anything like a severe spell of croup, the child should not be permitted to run out for three or four days. But see to it that he is not deprived of pure air.

Nose Bleeding.

This is a very common affection in children, and is generally caused by over excitement from running and from falls and blows, to which children are so much exposed.

The difficulty can generally be relieved by the free use of cold water, applied to the face and back of the neck and sniffed up the nose. Alum may also be used in the latter way. Quietude should be maintained; needless alarm discarded, and a physician called, should the simple means prescribed fail.

Worms.

These intruders are common in children; but it is only occasionally that they are in sufficient numbers to give rise to any serious disturbance, provided the child does not get sick from some other cause. In this case the worms become uneasy, and add to the trouble by their attempts to escape. And yet thousands of children are physicked to death every year with patent vermifuges, given for the expulsion of worms, which exist only in the imagination of mistaught mothers. These mothers are led to believe that there is quite a number of infallible SYMPTOMS

of the presence of worms; and whenever one of these is seen, from whatever cause, forthwith the child is dosed with some active purgative vermifuge. Now the truth is, there is but one sign of worms that is at all reliable, and that is the sight of them in the discharges. And in the absence of this evidence, mothers are not justified in resorting to any vermifuge, and especially any cathartic one.

When a child has the general derangement of health, which is usually charged on worms, it should be treated by tonics, and preferably by tonics of iron, with bathing, exercise, pure air, and such food as has been recommended in the hygienic management of children. These, after all, are the best vermifuges. For, if a child can be kept in good health, worms will not hurt, unless they accumulate in great numbers; and this they are not likely to do in healthy children. Nor will they remain long contented in a sickly child, as they find such quarters rather uncomfortable. The fact is, they will, in these cases, make their escape without any vermifuge. And hence the crawling from the mouth in children, sick from other causes, while the poor worms bear all the blame. Taking this view of things, we have seldom used vermifuges, and think it would be much better, for the world, if they were all thrown into the sea if the fishes could stand them.

The only VERMIFUGES we can recommend in domestic practice, are common salt, santonine, and oil of wormseed. And neither of these should be given, unless the worms are actually seen.

The dose of santonine is from one to three grains

every night, till three doses are taken, following with a mild purge the morning after the third dose, provided the bowels are not already loose, which is often the case.

The dose of oil of wormseed is from three to ten drops, three times a day in syrup for three or four days; to be followed by a cathartic of castor oil, or senna tea.

The table salt may be taken the same way, in doses of from half a teaspoonful, to a teaspoonful, dissolved in water.

It may be added that there is a little white or thread worm that inhabits the lower bowels of children, giving rise to great itchings and other troublesome symptoms, especially in little girls. These are to be expelled only by the use of injections and other applications to the part which is the seat of the worms. In these cases, it is best to consult a physician.

Bed Wetting.

This is one of the most annoying infirmities of childhood, and its SYMPTOMS are but too well known to most mothers.

It is not only a common, but a very difficult disorder to treat. But like most of the other ailments of children, our principal resource is in preventive measures.

The chief CAUSES are the too free use of fluids at night, and the irritation of the lower bowel by the presence of the little worms just mentioned.

The TREATMENT should consist mainly in searching

for and removing these intruders, and in withholding fluids at the evening meal. This should be taken early, and should be very light, with little or no fluid. As a safeguard it has been very properly recommended that the child be waked up once or twice during the night, but this is not very practicable. And the same may be said of confining a child to his side, or keeping it off the back while sleeping.

Harsh measures, such as punishment, "tying up," and other such devices should never be resorted to in these cases; for this is cruel and unjust, as the child "cannot help it." In obstinate cases, consult a physician; or bear the trouble, with the assurance that time will remove it.

Indigestion.

Children generally have very active digestive powers, and they would scarcely ever be troubled with this common disorder of adults, were it not for excessive and improper feeding. The mention of the *cause* plainly points to the remedy; and as full details have already been given as to the food and drinks of children, it is needless to repeat them.

Children at the breast generally vomit up their milk in a curdled state, from taking more than they can well hold. This is a wise provision of nature, and need not cause uneasiness, if the child thrives and retains its plumpness. But should the vomiting be attended with wasting, the difficulty should be met either in a change in the mother's diet or habits of life, or by consulting a physician.

If the discharges from the stomach or bowels are greenish in such cases, a good remedy is a teaspoonful of a solution of common soda every one, two, or three hours. The solution may be made by dissolving a teaspoonful of soda in half a teacupful of water. If the bowels are too loose, as well as greenish, lime water is an excellent remedy. This should be given in the same, or larger doses, mixed with milk.

These are the only medicines we will recommend in such cases.

The Eruptive Fevers.—Hooping Cough, etc.

These fevers are small-pox, chicken-pox, measles, and scarlet fever. Besides these, children are subject to many skin diseases attended with more or less fever.

But as we do not propose to treat of these in detail, we will only give some general directions which will be applicable to all, and which may be used in the absence of a physician.

In all these cases, the main reliance, in domestic TREATMENT, should be on the warm bath or warm wet sheet pack, tepid sponging, repeated whenever the heat rises above the natural temperature, cool drinks, light diet, pure air, and the occasional use of a mild cathartic of epsom salts or castor-oil; if the bowels are constipated. But purgatives should be used cautiously and sparingly. The greatest errors in these cases are keeping the patient too close, over-purging and over-feeding, and the excessive use of stimulants, hot drinks, etc., with the view of "keeping the eruption out;" and for fear of cold.

This is especially true of MEASLES, and patients with this disease are often killed outright by such treatment. As a general rule, it is advisable to use mild warm drinks in this disease, and it is proper to avoid strong currents of air to guard against repulsion, or "striking in of the eruption." But if the patient has a great desire for cold drinks or even ice, this desire should be gratified in moderation; and the room should be well aired in the diseases we are considering and in all others. The world is now too much advanced in knowledge longer to tolerate the practice of smothering up patients in blankets and hot unventilated rooms, and of stuffing and drugging them to death, when all that nature requires is fair play in the use of her own most efficient means, pure air, quietude, cooling, soothing remedies internally and externally; and just so much food as she can appropriate, and no more.

We could give striking examples, were it necessary, of the diminished mortality of the eruptive fevers, under this kind of treatment. But we will only say, that if mothers will lay aside their prejudices and notions on this subject, and treat these fevers, and all the ailments of children on the rational sensible plan here recommended, they will be delighted with the result, and will have done all that is necessary, unless it be to send for a sensible, progressive physician, should any threatening symptoms arise. And finally, we may add, that this is true of that common and troublesome disease of children—HOOPING-COUGH.

This too, is to be treated more by hygienic means,

than by drugs, though these are often very useful. As in the other cases, the principal remedies are the warm bath, pure air, etc. One remedy recently highly recommended is a tea of chestnut leaves. This is safe, and is said to be very effectual. It is made by putting a handful of the green leaves to a quart of hot water. It should be taken freely during the day.

Bromide of potash is also a good remedy, but hardly appropriate in domestic practice.

Sores behind the Ears.

These are so common among children, and so often mistreated, that they require a passing notice.

They are generally connected with teething. While no attempt should be made to dry up the sores by the use of ointments, salves, etc., they should not be neglected. They should be carefully washed every day with warm water, or milk and water, and then anointed with a little sweet oil or glycerine. A plaster made of glycerine and powdered chalk or starch mixed to a proper consistence, is very good. These sores are often made much worse by applying all kinds of stimulants, and by keeping the head too warm. Caps have much to do with these disorders, and should never be worn in any case. All attempts to dry up eruptions about the head should be studiously avoided, as convulsions, and the most serious affections of the brain have resulted from such ill-advised efforts.

NOTES.

The Marriageable Age.

This depends more on the physical development, as stated, than on the number of years. But there should be time for consolidation, as well as growth. The best age for girls may be put at from 18 to 25 years; and for men, the most eligible age is from 25 to 33.

Shall Cousins Intermarry?

Recent investigations seem to show that the dangers from such unions have been greatly exaggerated. But as hereditary family constitutional defects are likely to be propagated and intensified, by the intermarriage of near blood relations, such marriages should not be often repeated though admissible in cases where both parties are known to be perfectly free from any constitutional taint.

Shall Whites and Blacks Intermarry?

Science answers emphatically, No. For it is a well-established fact that the mulatto race is feeble and short lived, having, indeed, some of the mental characteristics of the superior race, but wanting in physical stamina and endurance. The decree of custom and prejudice on this subject then, is but an

echo of the voice of Nature, denouncing such abominable unions.

Shall Different Nationalities Intermarry?

On this point facts seem to prove that intermarriages of the same race, but of different nations, give rise to a more vigorous offspring, and are more fruitful than other marriages. The history of nations seems to sustain this idea. And this being true, there is nothing to prevent the people of the United States from becoming the greatest people on earth, both in physical and intellectual development.

The amalgamation of different nations, mostly of the same race, and the infusion and intermingling of new elements, tend to purify and invigorate the stream of life. But in this country, these advantages are too often rendered nugatory by our bad habits of living.

Temperaments and Marriage.

Science, and the instinct which prompts to the love of opposites, both concur in declaring that persons of different temperaments should be united in marriage.

This law is illustrated by the preference shown by black eyes for blue, light hair for dark, the tall for the short, etc. And the same law is enforced in the more perfect development, and in the greater vigor of the offspring of such unions. Finally, let us add that marriage should be for *love*, and love only. Matrimonial connections formed for con-

venience, or for mercenary purposes, can never bring happiness to the contracting parties, or a healthy vigorous offspring.

Dangers of Kissing.

Besides the social and moral objections to too great familiarities between the sexes, the practice of receiving kisses from men should be discouraged by women, on account of the danger of contamination from this kind of contact. Let it suffice as a warning, to say on this delicate subject, that pure and innocent girls and wives are exposed in this way to that foul disorder, which is too common among licentious men.

Time of Month and Year for Marriage.

The season of the year is not very important, if other circumstances are favorable to the union ; but it may be stated that spring and autumn are rather to be preferred. The best time in the month is, for obvious reasons, about midway between the menstrual periods.

Shall Husband and Wife Sleep Together?

We answer unhesitatingly, yes, when both parties are sound and healthy, and when there is no great disparity in age.

Much has been written on the negative side of this question, the opposition being based on moral and hygienic considerations. But in a well-ventila-

ted room, and with the qualifications of age and health mentioned, we can see no valid hygienic objection to a married couple occupying the same bed. And so far from such intimate association engendering aversion and weakening the bonds of love, we cannot imagine anything better calculated to warm the flame of love, than that physical contiguity, those electrical currents, and that intercommunion of soul which constitute the essence of wedded love; a love which can be cherished, sustained, perpetuated, and enjoyed only by close and intimate personal association.

Hygiene of Puberty.

As a general rule the *food* of girls at this age should be quite nourishing, but unstimulating. Milk and eggs are the best articles of diet. Much *exercise* should be taken in the open air, in the intervals between menstruation; but at the time, rest and quietude of body and mind should be enjoined. Many are injured by the neglect of the latter rule.

The *clothing* should be sufficiently warm, but light and loose, especially about the waist and hips. Special care should be taken at this age, and particularly at the menstrual period, to guard against exposure of parts usually covered, as the breast, arms, feet and lower limbs. Dabbling in cold water should also be avoided while the menses are present, but warm water may and should be used for the sake of cleanliness.

Girls about the age of puberty should not be con-

fined to hard study, and all sources of mental anxiety and excitement should, as far as possible, be avoided. Of course this prohibition applies with special force to late hours, balls, theatres, children's parties, etc., all of which have been noticed in another part of this work.

Beautiful Children.

We have spoken, perhaps, sufficiently of the influence of the mother's mind over her unborn child. We will only add that, if mothers would bear beautiful children, they must obey all the laws of health as they stand related to both the mind and body. Pregnant women should not only shun all disgusting objects, but they should cultivate the pure, the good and the beautiful, whatever refines and exalts the spiritual nature. To this end it is desirable that women in this condition should give as much attention as possible to music, poetry (of the right kind), painting and the fine arts. In short, they should endeavor to fill themselves with the beautiful; thus making themselves spiritually as well as physically the embodiments of loveliness.

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